Sectors	Development Expenditure, 1961-65 (estimate)					Development Expenditure, 1966-70 (target)				
	Malaya*	Sabah	Sarawak	Malaysia	%	Malaya	Sabah	Sarawak	Malaysia	%
Communications	*113.3*	*8.2*	*8.3*	*129.8*	*4.2*	*156.6*	*25.6*	*23.3*	*205.5*	*4.5*
Telecommunications	84.9	5.0	7.0	96.9	3.1	105.0	19.0	18.5	142.5	3.1
Broadcasting	23.0	2.8	1.3	27.1	0.9	42.3	6.0	4.8	53.1	1.2
Posts	4.9	0.4	—	5.3	0.2	9.0	0.6	†	9.6	0.2
Meteorological Services	0.5	—	—	0.5	—	0.3	—	—	0.3	—
Utilities	*527.4*	*28.5*	*34.3*	*590.2*	*19.0*	*695.0*	*58.0*	*33.3*	*786.3*	*17.2*
Electricity	352.5	13.9	16.4	382.8	12.3	545.0	15.0	24.3	584.3	12.8
Water	174.9	14.6	17.9	207.4	6.7	150.0	43.0	9.0	202.0	4.4
Education and Training	*236.5*	*18.2*	*22.7*	*277.4*	*8.9*	*368.0*	*27.2*	*45.6*	*440.8*	*9.7*
Health and Family Planning	*101.9*	*7.2*	*8.0*	*117.1*	*3.8*	*150.4*	*18.0*	*21.0*	*189.4*	*4.2*
Social and Community Services	*182.1*	*17.5*	*14.4*	*214.0*	*6.9*	*279.0*	*16.5*	*19.6*	*315.1*	*6.9*
Housing	69.4	9.8	7.5	86.7	2.8	173.2	7.4	7.5	188.1	4.1
Major Sewerage Schemes	8.0	—	—	8.0	0.3	21.6	—	—	21.6	0.5
Fire Services	4.0	—	—	4.0	0.1	4.6	—	—	4.6	0.1
Culture, Youth and Sports	—	—	—	—	—	11.6	0.4	0.4	12.4	0.3
Community Services	92.4	7.7	6.8	106.9	3.4	55.5	8.3	11.0	74.8	1.6
Welfare	5.8	—	0.1	5.9	0.2	8.7	0.4	0.7	9.8	0.2
Aborigines	2.5	—	—	2.5	0.1	3.8	—	—	3.8	0.1
General Administration	*123.6*	*32.8*	*19.8*	*176.2*	*5.7*	*87.9*	*26.9*	*11.6*	*126.4*	*2.8*
Defence	*244.7*	—	—	*244.7*	*7.9*	*502.0*	*53.5*	*44.5*	*600.0*	*13.1*
Accommodation	—	—	—	—	—	150.0	53.5	44.5	248.0	5.4
Equipment	—	—	—	—	—	352.0	—	—	352.0	7.7
Internal Security	*62.6*	—	*4.1*	*66.7*	*2.1*	*97.6*	*22.4*	*19.0*	*139.0*	*3.0*
Accommodation	—	—	—	—	—	55.1	22.4	19.0	96.5	2.1
Equipment	—	—	—	—	—	42.5	—	—	42.5	0.9
TOTAL	2,651.7	202.9	254.1	3,108.7	100.0	3,713.6	373.6	463.7	4,550.9	100.0

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* Sectoral estimates may differ from those given in Table 2-6 because of re-classification.

† Allocation for Postal Services is included under that provided for Telecommunications.

IV.—GEOGRAPHICAL DISTRIBUTION OF PUBLIC ECONOMIC AND SOCIAL DEVELOPMENT EXPENDITURE

159. The geographical distribution of economic and social development expenditure under the First Malaysia Plan is about $3,110 million for Malaya, $300 million for Sabah and $400 million for Sarawak, making a total of some $3,810 million. A number of factors were taken into account in the determination of this distribution among the three main parts of the country. These factors include their populations, development potentials, needs for economic and social infrastructure investment, financial capacities and their respective abilities to implement expanded development programmes without inflationary consequences.

160. The overall economic and social development expenditure target for Malaya is 32% more than the amount expended during 1961-65, while the targets for Sabah and Sarawak represent respectively increases of 47% and 57% over the expenditure achievement of the last five years. The substantial expenditure increases which are planned for the Borneo States are clearly indicative of the government's determination to ensure that as large an allocation is provided as can be expected to be achieved within the technical and administrative capacities of these States.

V.—THE FINANCING PROBLEM

161. The task of financing the public sector development expenditure programme will be more difficult than in the last five years. There are several reasons for this. In the first place, the trends in income of the country and in revenue of the government are expected to be less buoyant than in recent years because of the anticipated slow growth of exports associated with declining rubber prices and diminishing mineral resources.

162. A second reason for expecting increasing difficulty in financing development expenditure is the large and rising expenditure on current account that is required to cover the mounting day-to-day cost of the ordinary operations of the government including the expanded and widened variety of services in the fields of education, health, communications and defence and internal security. In the last five years, recurrent expenditure has increased by 67%, as a result of which the current budget surplus which was available for investment financing to the extent of $330 million in 1960 has now just about vanished. A much more austere view of further growth in recurrent government spending will be necessary if a surplus is again to be created to help meet the cost of Malaysia's investment needs.

163. Finally, there is the need to provide for the expansion of the defence and police capabilities of the country. Fortunately, in this critical task of defence, Malaysia is able to rely on the generous support of its friends

abroad. But with all their help the country's own domestic resources will still be increasingly drawn upon in the next five years for defence and internal security. In addition to a large increase in recurrent security expenditure, the capital cost of security installations and equipment during 1966-70 are now expected to require almost $740 million. This is considerably more than twice the comparable figure of $311 million during 1961-65.

164. As it is the resolve of the government to continue to develop this country without upsetting its existing monetary and financial stability, the financial framework of the First Malaysia Plan has been formulated on the following principles. Firstly, the Plan assumes a cumulative ordinary budget surplus over the period 1966-70 which will contribute to the financing of public development expenditure and preserve a satisfactory fiscal base for continued development beyond the period of the First Malaysia Plan. A second financial principle of the Plan is that reliance on credit from the banking system will be limited to amounts which can be used without inflationary effects and without more than a reasonable use of the foreign exchange reserves. Finally, the financial framework of the Plan has been prepared on the principle of continuing to place major reliance for Malaysian development on the private sector. The mobilisation of resources for public investment through taxation and domestic borrowing will therefore be limited so as to leave ample means for the financing of the private investment which is crucial for Malaysia's economic progress.

165. These financial principles severely limit the ability of the government to raise money from Malaysian sources for the scale of public investment that is contemplated in the First Malaysia Plan. It is therefore necessary to plan on the basis of major reliance on financing from abroad. The targets for foreign borrowing and foreign grant assistance have thus been set at much higher levels in 1966-70 than the actual levels of 1961-65. The government believes that these targets are realistic in terms of Malaysia's creditworthiness and its ability to service and repay external loans. They also appear realistic in terms of assistance levels widely considered reasonable by aid-giving countries and institutions for developing countries which are managing their economic and financial affairs satisfactorily.

VI.—FINANCING THE PUBLIC SECTOR PROGRAMME

166. The specific means of financing the public sector development expenditure programme under the First Malaysia Plan are discussed in the remainder of this chapter. It is estimated that revenue of the Federal and State Governments will rise from about $1,670 million in 1965 to about $2,200 million in 1970. This projection takes account of a probable drop in rubber prices and other aspects of the export outlook. It is based on

expected growth of revenues at existing tax rates together with an allowance for additional income from tax changes in the course of the Plan period. For the period as a whole the estimate of accumulated government revenue is $9,800 million. This is about a third larger than the revenue of the Federal and State Governments during 1961-65 and implies an average annual rate of increase of about 5%, which is about the same as the rate of increase during 1961-65.

167. Because of the sharp decline in the recurrent surplus of the government budget it will not be possible to maintain the recent growth of annually recurrent spending, which rose by 67% between 1960 and 1965. Considerable increases will nevertheless be necessary, especially in the coming two years, because of the transition to the comprehensive school system and the expansion of the armed forces. It is expected that these and other requirements can be met with increases in recurrent expenditure of 9% in 1966, a further 7% in 1967 and 6% thereafter. On this basis recurrent federal and state expenditure during the five years of the Plan will amount to $9,600 million.

168. This growth of recurrent expenditure, in conjunction with the revenue forecasts, will maintain some margin of surplus in the ordinary budget but the amount will be small; for the entire 1966-70 period it will total about $200 million, which is about one-fifth of the accumulated current surpluses of the Federal and State Governments during 1961-65.

169. Other aspects of the domestic fiscal picture are more favourable. There is a prospect of considerably larger current surpluses from the earnings of public authorities than in the last five years. This is almost entirely due to the favourable financial prospects of the National Electricity Board (NEB) because of the rapid expansion in residential, industrial and commercial demand for electricity that is taking place. It is estimated that the profits and other investment funds available from the earnings of public authorities during 1966-70 will be about $425 million, or over twice as much as in 1961-65. About 80% of this is expected from the earnings of the NEB.

170. Prospects for government borrowing from domestic sources other than the banking system are also favourable and more public investment financing can be expected from these sources than was possible during 1961-65. This is mainly because of the growth and broadened coverage of the Employees Provident Fund (EPF) and the consequent increase in resources for public and private investment. EPF net accruals of funds available for investment during the coming five years are estimated at $1,010 million. Part of these funds will be invested directly in private development; an allowance of about $100 million would seem reasonable

on the basis of past and prospective patterns of EPF investment in approved private securities. The remaining $910 million will be available for investment in government securities.

171. An additional demand for government securities can also be expected from domestic individual, business and institutional investors other than banks. This demand is assessed for the Plan period at about $115 million net of repayments—a relatively low figure mainly because of disinvestments by the Rubber Industry Replanting Board. In total, therefore, the possibilities for financing public development expenditure from domestic borrowing outside the banking system are expected to amount to about $1,025 million.

172. The limits to which public development expenditure can be financed from bank credit and the use of government balances without adverse inflationary or foreign exchange consequences depend on the extent to which they are offset by savings of the population in the form of either bank savings deposits or increased holdings of cash or demand deposits. Some increase in these holdings is usually associated with a general increase in economic activity and the need to keep larger amounts of money on hand as the volume of money transactions expands. So long as additional bank credit and the spending of government balances are no more than the increase in savings deposits and holdings of cash or demand deposits, there will be no resulting inflation or foreign exchange loss. Beyond this there will be one or the other or both and the extent to which inflation can be avoided in these circumstances will depend on the extent to which the country can afford to allow the inflationary influences to take the form of reductions in foreign exchange reserves rather than an increase in the price level.

173. It is difficult in practice to determine just where the lines can be drawn in this matter of financing through bank credit and the use of government accumulated assets. Some approximate assessments are, however, possible. Judging by past trends and prospects for the further growth of the economy, it is possible to forecast that private sector holdings of financial assets will increase by about $2,230 million in 1966-70. Of this total, about $1,025 million is expected to be invested in government securities as indicated in paragraph 171 above. The remaining $1,205 million is projected to be held in the form of bank deposits or currency.

174. Past trends and the targets for development in the private sector suggest a need for the extension of credit from the banking system to the private sector of about $500 million. The balance of about $700 million is the amount expected to be available for financing public investment through the extension of credit to the government from the banking system and draw-down of the accumulated assets of the government without inflation or use of the country's foreign exchange reserves.

175. The target level of public investment financing by bank credit and the use of government accumulated assets is $1,000 million. When taken in conjunction with prospective developments in private foreign financing, this will lead to some use of the country's foreign exchange reserves. However the use of these reserves is unlikely to be excessive. The country has a satisfactory foreign exchange position at the present time with official foreign exchange reserves and the net foreign assets of commercial banks amounting to about $2,700 million, which is enough to pay for eight months' import requirements. On the other hand, it is most important to keep total reserves at a high level both for reasons of international confidence and also to ensure that there is still an adequate exchange reserve for the years beyond the period of the First Malaysia Plan. Thus if the target levels of private long-term capital inflow and public foreign assistance are achieved, serious balance of payments problems and a major reserve rundown will be avoided.

176. In summary, the resources that can be reasonably mobilised for public development expenditure from Malaysian funds, including the use of bank credit and government accumulated assets, are as indicated in Table 4-2.

TABLE 4-2

MALAYSIA: INTERNAL FINANCIAL RESOURCES FOR PUBLIC DEVELOPMENT EXPENDITURE, 1966-70

($ millions)

	Cumulative total
Federal and State Governments revenue	9,800
Federal and State Governments recurrent expenditure	9,600
Government surplus available for development expenditure	200
Surplus of public authorities	425
Net domestic non-bank borrowing	1,025
Bank credit and use of government accumulated assets	1,000
TOTAL ...	2,650

177. The total of internal resources is about the same amount raised during 1961-65. For the reasons previously explained, it is not possible to envisage a larger financial effort from Malaysian resources if financial stability is to be maintained and excessive inroads into the investment resources of the private sector are to be avoided. Yet the needs for public

development expenditure during the next five years are much larger than in 1961-65. Capital requirements for defence and security will take about $740 million and economic and social development expenditures which are considered essential priorities amount to about $3,810 million after severe pruning. Total public development expenditure amounts therefore to $4,550 million or $1,900 million more than can reasonably be financed from Malaysian resources.

178. The difference will be sought from foreign sources in the form of loans and grants. Malaysia's capacity for undertaking and meeting the payments on additional external debt is still large. The present foreign debt of about $750 million is relatively modest. This is less than 10% of the national output and about 20% of the total public debt. The annual payments on this foreign debt at their peak will be less than 4% of government revenue and about 2% of Malaysian export earnings. This is a light burden by comparison with most developing countries. Considering only the foreign exchange and balance of payments position, Malaysia could probably afford the interest and principal payments that would be required if the entire $1,900 million needed from foreign assistance were to be obtained in the form of loans. However, from the standpoint of the government budget, the annual service payments that would be required by such large amounts of foreign borrowing on conventional terms would be an extremely heavy financial burden. It would come on top of the already substantial burden that will fall on the budget from the considerable increase in domestic debt that is contemplated during the coming five years. If to the annual service of domestic debt, payments were required on an additional foreign debt of $1,900 million, the annual domestic and foreign debt payments by 1970 would require at least 15% of total government revenue. A debt burden of this size would be a serious aggravation of the difficult financial future that the country is likely to face in the latter 1960s and the early 1970s.

179. For this reason it is the aim of the First Malaysia Plan to secure a large part of the foreign financing needs on a grant basis. It is difficult at this time to foresee the magnitudes of financial assistance that may be obtained from foreign countries and international agencies or to arrive at any very definite view of the terms on which such assistance may be forthcoming. In the light of Malaysia's successful record of financial management and development progress, the government is confident that in this period of financial difficulty the possibilities for financial support from abroad on liberal terms will be favourable. It is the determination of the government to justify such support through continued financial policies which are sound and development policies which take every possible advantage of favourable opportunities for private and public economic progress. On the assumption

of substantial foreign assistance for the First Malaysia Plan and in the hope of avoiding an excessively heavy budgetary burden from additional debt service, it will be an objective of the Plan to keep the foreign borrowing component to a maximum of $1,000 million, of which it is anticipated that $300 million will be loans raised in international markets, and to seek the remaining $900 million needed from abroad in the form of grants. If foreign financial backing for the First Malaysia Plan on this scale and pattern is obtained, the resources available for public development expenditure during 1966-70 will be as shown in Table 4-3.

TABLE 4-3

MALAYSIA: RESOURCES FOR FINANCING PUBLIC DEVELOPMENT EXPENDITURE, 1966-70

($ millions)

	Cumulative total
Government surpluses	200
Public authorities surpluses	425
Domestic non-bank borrowing	1,025
Bank credit and government accumulated assets	1,000
Foreign borrowing (net)	1,000
Foreign grants	900
TOTAL ...	4,550

CHAPTER V

Employment and Manpower for Development

180. A country's rate of economic development is determined not only by its material resources and the size of its internal market but also by its "brainpower" i.e. by its success in developing and in utilising effectively the intellectual capacities of its population. Wastage of these human capabilities, whether through unemployment or failure to develop sufficiently the intellectual potential of individuals, is a drag on development as well as a major social problem. It is thus a fundamental objective of the First Malaysia Plan to ensure that the nation's human resources are developed and employed in such a manner as to secure their greatest possible contribution to national economic development.

I—THE EXISTING MANPOWER SITUATION

181. In terms of employment, Malaysia today is a nation of contrast. In Sabah labour shortages have been accentuated with the curtailment of the inflow of unskilled Indonesian workers and skilled artisans from Hong-kong and Taiwan. A significant volume of economic activity has thus been foregone as a result of shortages of both unskilled and skilled workmen. In addition, unusually large increases in wage rates of skilled construction workers resulting from the shortage of trained manpower have contributed to inflationary tendencies in the construction industry.

182. On the other hand, in Malaya job-seekers continue to out-number available opportunities to a certain extent and under-employment remains a problem. Through persistent efforts at economic development during the last five years Malaya has been generally successful in providing jobs for the mature work force. The unemployment rate for men over 25 years of age has been held to under 3% of the number seeking employment.

183. Youth unemployment, however, remains high. Of the young men between the ages of 15 and 19 who are seeking work, about 16% are believed unemployed in Malaya as a whole. In the major towns, the unemployment rate is 27% as compared with about 14% in rural areas. This suggests some movement of youths from rural to urban communities. It is estimated that about 30% of unemployed males in this age group remained unemployed for more than one year and that 80% have never had a job. Many of the latter are presumed to be fairly recent school-leavers still living with their parents. Among young men aged 20 to 24, the unemployment rate is lower, averaging 10% in the large towns and around 6% in the rural areas. However, total unemployment at 6% of the male and female labour force has remained at a somewhat more satisfactory level and compares not unfavourably with other nations in Malaysia's stage of development.

184. In order to reduce significantly the overall rate of unemployment, the economy will have to grow rapidly. To accomplish this it will be necessary to break a number of skill bottlenecks which have impeded development to date. For instance, in Malaya nearly 30% of jobs in the private sector which require more than a secondary school education are either vacant or filled by non-Malaysians. Most, if not all, of these represent jobs for which qualified Malaysians are not available. Similarly, in the public service, recruitment during 1964 succeeded in filling only 70% of the 3,500 vacancies in government departments. And in the schools, an estimated 5,000 teaching positions are reported either unfilled or filled with under-qualified teachers.

185. The shortage of qualified manpower has had other effects which are less measurable but perhaps even more costly. Agricultural diversification and productivity gains have been deferred because of lack of research specialists and trained extension personnel. Locally financed industrial expansion has proceeded less rapidly than it might have because the small businessmen lacked adequate access to expert assistance on financing, production and marketing problems. Some new industries have not yet been established because the staff to undertake engineering or economic feasibility studies was not available. In these and many other ways the shortage of specialised know-how in science, technology, business and management has been and remains one of the most important limiting factors on the expansion of private investment and employment.

186. The First Malaysia Plan, therefore, starts from a base of plentiful or even excess labour resources which are not well distributed in relation to requirements for manpower. In geographic terms, the maladjustment of labour supply to demand in the aggregate limits economic growth in the

Borneo States and swells the major towns of Malaya with a surplus of inexperienced young workers. In occupational terms, the nation is experiencing a surplus of untrained workers while the expansion of investment and job opportunities is being retarded by shortages of many types of specialised know-how.

187. To provide employment for those seeking it while developing the know-how needed for accelerated growth is the manpower objective of the First Malaysia Plan. In this endeavour the nation is not starting anew but is building on the solid foundation laid by previous decisions, particularly the decisions to undertake rapid expansion of educational and industrial development programmes. The government has also initiated manpower planning operations designed to anticipate the needs of expanding industry for the various types of trained workers. Through such planning, the education and training systems will be geared to support and accelerate the industrialisation programme.

II.—THE 1966-70 EMPLOYMENT TARGETS

188. By 1970 Malaysia will have some 460,000 workers more than in 1965, in a labour force that approximates 3.7 million. This represents a growth of 2.7% per year in the number of workers, slightly less than the rate of increase in total population. In Sabah, anticipating some intake of workers from other states, the somewhat higher rate of labour force growth of 3.2% is expected.

189. The employment goal of the First Malaysia Plan is to provide 460,000 additional jobs, thus generating employment for the entire estimated increase in the nation's labour force. This is an ambitious and challenging goal, the achievement of which will depend upon the attainment of the investment and production targets envisaged for every sector of the economy. Success in achieving this target would mean that the number of unemployed, remaining near the present level of 160,000, would constitute a declining proportion of the growing labour force. Thus the rate of unemployment for Malaya would be reduced from the present 6.0% to 5.2% of the labour force. Of equal importance, the Plan contemplates sizable reductions in under-employment, particularly through the various programmes for raising agricultural productivity and enlarging farm holdings. The sectoral employment targets for 1966-70 are shown in Table 5-1.

190. The employment plan represented by these targets is noteworthy mainly for its emphasis on agriculture. Through a variety of measures, particularly the clearance and planting of thousands of acres of new land, the plan seeks to ensure favourable opportunities in agriculture, forestry and fishing for 70% of the farm youth coming to working age in Malaya.

Success in this effort will depend partly on the accelerated alienation of land by the state governments. Careful counseling and guidance will also be necessary to enable rural youth to realise that modernising agriculture provides a promising vocation. However, these efforts can be successful only if the conditions of living and the material rewards of agricultural enterprise become relatively attractive. This challenge can be met. Physical output per worker should increase by nearly 20% during the five years and income *per capita* should rise. These increases, along with the amenities which will become increasingly available, will make rural life and work more and more attractive. These developments will aid Malaya to hold to manageable proportions the growth of urban population and labour force.

TABLE 5-1

MALAYSIA: EMPLOYMENT TARGETS BY SECTOR, 1965-70

(thousands)

	1965 (preliminary)	*1970 (target)*	*Increase, 1965-70*		*Annual rate of increase (%)*
			Number	*%*	
Malaysia:					
Labour force	3,226	3,687	461	14.3	2.7
Unemployment	160	160	—	—	—
Employment	3,066	3,527	461	15.0	2.8
Malaya:					
Labour force	2,678	3,055	377	14.1	2.7
Unemployment	160	160	—	—	—
Unemployment as % of labour force ..	6.0%	5.2%	—	—	—
Employment	2,518	2,895	377	15.0	2.8
Agriculture	*1,388*	*1,553*	*165*	*11.9*	*2.3*
Manufacturing	*173*	*209*	*36*	*20.8*	*3.8*
Mining	*61*	*61*	—	—	—
Construction, utilities and transport ..	*210*	*252*	*42*	*20.0*	*3.7*
Public administration and defence ..	*257*	*312*	*55*	*21.4*	*4.0*
Trade and services	*429*	*508*	*79*	*18.4*	*3.4*
Borneo States:					
Labour force	548	632	84	15.3	2.9
Unemployment	negligible		—	—	—
Employment	548	632	84	15.3	2.9
Agriculture	*441*	*508*	*67*	*15.2*	*2.9*
Non-agriculture	*107*	*124*	*17*	*15.9*	*3.0*

191. In the Borneo States agricultural employment is projected to grow at about 3% per year. In the case of Sabah, this growth will depend in part upon the number of estate workers transferred from Malaya. Important changes in the structure of employment are envisaged within the agricultural

sector as farmers using primitive methods are resettled and trained for more productive commercial farming.

192. Employment estimates for public administration and defence reflect the needs arising from government economic, social and defence programmes. Manufacturing employment is expected to continue its strong rate of growth although, as a reflection of the small base from which it starts, it will account for only about 10% of the new jobs anticipated. Construction employment will expand but at less than the phenomenal rate of recent years. Trade and service industries generally should expand slightly faster than the rate of growth of the labour force; and mining, with some decline in output in prospect, will barely maintain its present level of employment.

193. These employment targets are achievable and important parts of the Plan are designed to facilitate their achievement. However, success must not be taken for granted. Investors are frequently confronted with alternative opportunities employing widely varying quantities of labour per unit of investment. Since much will depend upon how these decisions are made, the government, in re-examining its pattern of development incentives, will seek to ensure that these inducements are administered so as to encourage maximum use of the country's labour resources, consistent with other economic requirements.

194. However, attainment of the overall employment target will not in itself remedy the existing imbalances. Specific and purposeful programmes will be undertaken by the government to deal with the problems of youth unemployment, transfer of labour to Sabah and the shortage of specialised skills.

195. With over 25% of the urban male labour force aged 15-19 now unemployed, the problem of youth unemployment is likely to persist even though the national average unemployment rate declines. Consequently, consideration is now being given to the possibility of establishing a National Youth Pioneer Corps in which unemployed youths will be given productive work along with practical training and experience designed to make them better equipped for employment.

196. The transfer to Sabah of the labour needed for maximum development cannot be expected to occur without special assistance, organisation and modification of entry control. Agreement between the Federal and State Governments on the details of such a programme will be established as an essential prerequisite to the ability of Sabah to achieve the investment contemplated under the Plan.

197. Development of the necessary specialised personnel can only be effected through carefully designed programmes of education and training. These requirements are examined in the following sections.

III.—TRAINED MANPOWER FOR DEVELOPMENT

198. A developing, modernising society like Malaysia requires growth in the use of specialised technological and management skills at a rate of two, three or even more times the growth rate of the labour force. For Malaya specifically, the recent survey of manpower requirements in manufacturing suggests that by 1970 this sector will need double the number of engineers and related technologists it now employs if it is to achieve the manufacturing output growth target of 10% per year. And for such professional level specialists as accountants and auditors, manufacturers expect to need almost three times the small number they now employ.

199. It is in the light of such assessments that the First Malaysia Plan accords high priority to development of the relevant types of education and to other measures aimed at qualifying and upgrading the work force.

OUTPUT OF TRAINED MANPOWER

200. The future supply of trained manpower for development is dependent largely upon the output of the education system, that is, the number of those with various types of qualifications at the time when they complete their formal schooling.

TABLE 5-2

EDUCATIONAL OUTPUT TRENDS IN MALAYA, SELECTED YEARS, 1960-70

*Level of attainment at completion of education**	*Number completing education*				
	1960	*1965*	*1967*	*1968*	*1970*
University	47	657	740	1,050	1,700
Technical and agricultural colleges ..	99	203	230	250	330
Sixth form (& Muslim College)	692	1,756	4,900	6,150	5,870
Teachers colleges†	2,130	2,531	6,200	6,310	7,160
Upper secondary:	9,724	14,494	23,870	23,920	54,370
Academic	*9,338*	*13,728*	*23,200*	*22,960*	*41,580*
Technical	*107*	*306*	*480*	*560*	*4,180*
Vocational	*279*	*460*	*190*	*400*	*8,590*
Lower secondary	4,782	23,752	38,200	73,400	99,100
Primary	140,947	45,309	30,800	26,100	20,900
TOTAL ..	158,421	88,702	104,950	137,180	189,410

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* Includes dropouts and failures at each level as well as those completing successfully. Those who will continue their education on a full-time basis are *not* included in these "output" figures.

† Includes a large number whose training will have been of a part-time, in-service nature.

201. As Table 5-2 shows, the introduction of the comprehensive system of education and the expanding programmes for higher education in Malaya will begin to affect manpower supply substantially during the Plan period. By 1968, the school-leavers seeking employment will predominantly have a Form III rather than merely a primary school education. They should prove more adaptable and productive workers. The number seeking employment after completing upper secondary education will continue the mild upward trend of the past five years until 1968, after which the number with this qualification will double by 1970—again with favourable long-term results on the productivity and flexibility of the work force.

202. In higher education the big expansion of output will be of teachers, many of whom will have received in-service, part-time training. The number of graduates from the expanded agricultural and technical colleges and the university will increase significantly during the Plan period. By 1970, however, the number of graduates will remain small relative to anticipated requirements. The great expansion planned and underway in the development of the vital technical and higher level skills will produce substantial increases in the availability of these skills after the First Malaysia Plan period. This is the case particularly because of the work experience needed before youthful graduates become qualified professional-level specialists.

203. During the 1966-70 period nearly 700,000 young Malaysians will complete their schooling with perhaps 65% of them seeking employment. Of the total number, from 2.0 to 2.5% will have had college or university training, a majority of them abroad*. This means a five-year output of the order of 15,000 college and university trained Malaysians.

204. With the present stock of professional, technical and managerial personnel estimated at around 80,000, at least 1,200 additions to the group will be needed each year merely to replace losses due to death, disability and retirement. Consequently the projected output of 3,000 graduates per year will represent a net increase in availability of such high-level manpower of about 1,800 per year. This constitutes a rate of increase in the stock of such skills of about 2.5% per year. By any calculation the demand for personnel with such qualifications will grow at a materially higher rate. Thus the nation will continue to depend far more than it would choose upon professional, technical and managerial personnel whose qualifications derive from experience without professional education.

205. In brief, the rapidly shifting output of the education system during the Plan period will materially improve the quality of the work force. However, the expansion in vocational, technical and higher education will produce graduates in numbers approaching the demand for them only after

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* Teachers college outputs are excluded from this comparison.

1970. The adjustments that will be needed to minimise the impact of this short-term disparity between supply and demand are covered in the following paragraphs.

REQUIREMENTS FOR HIGH-LEVEL MANPOWER

206. The professional, technical and managerial personnel grouped under the term high-level manpower constitute the energizers and designers of economic change. It is not known just how much high-level manpower represents the optimum for a nation in Malaysia's position. Nor is it possible to fix a minimum overall quantity in the absence of which the growth targets will not be attained. It is certain, however, that increasing use of personnel of this level is essential to development and that higher stages of development are characterised by use of a far higher proportion of trained managers and of professional and technical specialists than Malaysia now possesses. Experience of somewhat more advanced nations suggests that, in the long run, the stock of such personnel must increase by at least double the rate of increase in employment generally. This would imply an increase of at least 5.6% a year in Malaysia's stock of high-level manpower, more than double the growth expected from the formal education system during the next five years.

207. As indicated above, this gap between supply and demand for high-level personnel is temporary in nature. A much better balance will be achieved during the 1970s but the nation must in the meantime do what it can to fill the gap through other, essentially traditional, methods. For instance, managers traditionally have been developed mainly through experience rather than professional education. This process can and will continue to fill any managerial shortage so far as quantity is concerned. To a lesser extent shortages of more specialised personnel, e.g. engineers, have also been alleviated in this way. Also, qualified foreign personnel have been available to fill the posts which, for one reason or another, could not be filled adequately with Malaysians.

208. The sacrifices involved in these traditional processes of adjustment are largely of a qualitative nature. A slower "professionalisation" of management personnel means slower substitution of modern for traditional business methods and continued dependence upon technical personnel trained mainly by on-job experience is bound to delay achievement of the ability to compete with other countries in modern industrial processes. Special government efforts will be required and will be made to ensure that achievement of Plan targets is not prevented by these factors.

209. Although shortages will be evident in most expanding sectors of the economy, the needs for the following types of high-level personnel will be

particularly crucial to the success of the Plan and will receive special attention.

210. First, the requirements for personnel with higher education diplomas and degrees will rise unusually sharply in the 1966-70 period on account of the need for teachers to staff the rapid expansion of upper secondary and higher education. The scheduled expansion in Malaya alone will require more than 2,000 additional teachers with such qualifications, most of them with a scientific or technical training.

211. Second, the pace of locally-financed industrial expansion depends in part upon the availability and use of a substantial supply of trained and experienced business specialists—men qualified to assess industrial opportunities, to help small businessmen develop and justify bankable projects and to provide expert counsel while the projects are becoming established. These scarce skills will be required in significant numbers for the staffing of government agencies concerned with industrial expansion as well as for private financial and industrial concerns.

212. Third, the considerable expansion in agricultural research and development which is a vital part of the Plan will create substantial requirements for qualified research specialists. Agricultural research alone is expected to require more than 400 additional Division I and II specialists, while the planned expansion of land development programmes and the Federal Agricultural Marketing Authority will need a further substantial number of specialists.

213. Equally difficult manpower problems have long existed in the health and medical fields and requirements of this sector will continue to need special attention. Similarly there is no doubt that the scarcity of those with modern training and experience in a wide range of specialised scientific, technological and management skills, both in government and in the private sector, will continue to slow the pace of economic development. The private sector carries the main thrust of the industrial development effort and the government's manpower plans and operations will give major emphasis to the manpower needs of private enterprise.

214. To ease the impact of these shortages, the government will embark upon two separate types of action. In the case of the skills needed to provide modern management, this will involve the accelerated development of Malaysian talent through practical short-term courses for present managers and small businessmen by such institutions as an expanded National Productivity Centre, the University of Malaya's proposed Faculty of Economics and Administration and the proposed Malaysian Institute of Management. The expansion and improvement of such institutions will be the object of continuing government attention and support.

215. In the case of the scientific and technological specialists needed in large numbers for implementation of educational, agricultural and health programmes and of the industrial analysts and specialists needed for rapid expansion of private investment, expanded recruitment of foreign specialists on a temporary basis will be required to achieve the Plan goals. This will be accomplished in such a way as to protect fully the rights of citizens to priority consideration for the specialist jobs as they gain the requisite qualifications. Such use of specialists on a temporary basis with Malaysian counterparts will speed the acquisition by Malaysians of needed experience.

REQUIREMENTS FOR MIDDLE-LEVEL MANPOWER

216. In addition to an adequate supply of professional men, executives and technicians, the availability of middle-level manpower, particularly skilled workmen, constitutes an essential requirement for expansion of modern industry. As the country embarks upon the First Malaysia Plan it has reached the point in the development process at which the assured supply of such skills is a factor in attracting industry and a necessary concern of the government. Providing for the development of these skills is a proper cost of enterprises which depend upon them; but, in an economy of relatively small businesses, organising the necessary training programmes depends upon government action. To meet the requirements of the growing industrial sector, establishment of an industrial training programme, with costs shared equitably among the businesses which benefit, will become the subject of early consultation with labour and management.

IV.—MATCHING MANPOWER DEMAND AND SUPPLY

217. Shortages of specific types of manpower in one area while surpluses exist in another have been costly, particularly in the case of Sabah. Such imbalances are bound to occur more frequently as industrial development increases the diversity and number of specialised skills required. To resolve such problems consideration is being given to the establishment of an Employment and Training Department within the Ministry of Labour. The new department will encompass and extend the present employment exchanges and develop a staff of career specialists to provide more effective placement services for applicants, recruitment assistance for employers, guidance for job seekers and a variety of specific training services to equip unemployed workers with the skills needed by expanding industries.

218. With the assistance of this new department in the Ministry of Labour and the Department of Statistics, the Economic Planning Unit will organise periodic assessments of the employment status of the labour force and of

the manpower requirements of industry. These and other planning and research activities will be stepped up so that imbalances between manpower requirements and supply may be foreseen and remedial action initiated at an early stage.

V.—UTILIZATION OF HIGH-LEVEL MANPOWER

219. Recognising that high-level manpower is a very scarce resource the shortage of which inhibits national development, the government will ensure that such skills are employed as fully and as productively as possible. As a first step to this end, with particular regard to scarce scientific skills, the government is considering the establishment of a national research co-ordinating body affiliated to the National Development Planning Committee. This body would be charged with responsibility for keeping under review the extent and nature of the government's support for research, identifying areas in which greater productivity and economy of scarce research skills may be achieved through co-ordination of separate research efforts and proposing areas in which concentration of available research personnel may be expected to contribute most to the nation's development effort.

CHAPTER VI

Administrative Machinery for Planning and Implementation

I.—INTRODUCTION

220. The magnitude of investment expenditure envisaged in the First Malaysia Plan calls for implementation efforts far greater and more complex than those of the past. A high degree of administrative efficiency, close co-ordination among the various levels of government, working partnership between the public and private sectors and the full co-operation and active participation of the ra'ayat will all be necessary if the required mobilisation and utilisation of scarce capital and human resources is to take place. While the problems will be immense and the efforts required to meet them will be great, the government is fortunate in having had the benefit of successful experience in implementing a bold public development programme.

221. The First Malaysia Plan therefore starts off with a sound basis for developing further the administrative machinery for planning and implementation. The progress which has been achieved so far, however, will not be allowed to slacken since much more needs to be done in the years ahead. Particular attention will be devoted to increasing technical and administrative efficiency by improving the organisational structure, facilitating project preparation and developing more effective co-ordination among the various public and private bodies engaged in the development effort.

222. Because of the geographical spread of Malaysia, with the Borneo States being over 1,000 miles from Malaya, the different levels of development in the various states and the increasing range of government responsibilities, the task of co-ordinating the implementation of the Plan will be difficult. The successful execution of this task will depend to a great extent on the understanding of the objectives and priorities of the Plan and the ability of those engaged in implementation to maintain

effective communication with each other. It is in recognition of these problems that improvements in certain aspects of the machinery for development planning and implementation will be effected.

II.—ORGANISATION OF PLANNING MACHINERY

NDPC, EPU AND DEPARTMENTAL PLANNING SECTIONS

223. The government recognises the need for a strong and permanent planning organisation to cope with the increasing volume of work required for proper planning, close co-ordination and adequate control of rapidly expanding economic and social programmes. For this purpose the Federal Government established a National Development Planning Committee (NDPC) and reorganised the then Economic Secretariat into an Economic Planning Unit (EPU) in the Prime Minister's Department in 1961. While the ultimate responsibility for planning in the country rests with the Cabinet, the detailed consideration of the many policy problems involved is the special responsibility of the NDPC, to which the EPU provides secretariat services. The NDPC is responsible for the formulation, implementation, progress evaluation and revision of development plans, as is evident from the following terms of reference assigned to it:

(i) to formulate and review all plans for national development and make recommendations on the allocation of resources;

(ii) to review the causes of delays and difficulties in the implementation of national development plans and propose specific solutions;

(iii) to ascertain such adjustments in national development plans as may be necessary in the light of changes in the economic situation;

(iv) in the discharge of the above terms of reference, to use its discretion in making decisions itself or to make reference to the Cabinet or the Economic Committee of the Cabinet;

(v) to consider all subjects to be submitted to the Cabinet by Ministries and Departments which have a direct or indirect bearing on development, and if it considers necessary, to advise Cabinet on the developmental aspects of each subject.

224. The Chairman of NDPC is appointed by the Cabinet in his personal capacity. He is currently the Permanent Secretary, Prime Minister's Department and concurrently the Head of the Civil Service and the Secretary to Cabinet. The membership consists of the Governor, Bank Negara Malaysia and representatives from the Treasury, Ministry of Commerce and Industry, Ministry of National and Rural Development, the Economic Planning Unit of the Prime Minister's Department and the Department of Statistics. Since the establishment of Malaysia, representatives from both Sabah and Sarawak have been appointed to the Committee so as to provide for the Committee

their specialised knowledge of these States. The terms of reference and composition of the NDPC are indicative of the importance attached to development planning and plan implementation by the Government.

225. In addition, the Federal Government is setting up an Advisory Committee to the NDPC on the development of the private sector. The membership will include representatives from private enterprise, employers' associations and trade unions. The advisory body will provide a forum for discussions with representatives of the private sector as to the plans and policies required for accelerated development. It will also serve as a channel by which Government can be kept informed about the detailed plans and problems of the private sector.

226. The Secretariat for the NDPC is the EPU, which is responsible for undertaking staff work connected with the functions and responsibilities of the NDPC. During the last five years measures have been taken to strengthen the technical competence of the EPU staff through a programme of post-graduate overseas training combined with in-service training with the assistance of advisers provided by the United Nations, the Colombo Plan and the Ford Foundation. Planning officials have also had the benefit of training and advice received from World Bank missions. This training programme will be intensified in the future with the ultimate aim of creating a specialised organisation within the Government which will be capable of providing all the technical expertise required for the formulation and implementation of development plans.

227. To provide further support to the NDPC and to improve their own planning activities, the major Ministries have been directed to establish their own planning and research sections. Close and frequent consultations are being maintained through the EPU between the NDPC, Bank Negara Malaysia and the Ministries and Departments to ensure smooth and co-ordinated functioning of the planning machinery. Such planning and research bodies include the Economic Division of the Treasury, Department of Statistics, the Economic Research Department of Bank Negara Malaysia and Planning and Research Divisions in the Ministry of Agriculture and Co-operatives and Ministry of Education. The work of these sections complements the technical development planning work of the EPU. Several State Governments and other Federal Ministries and Departments also have assigned officers to undertake planning operations. Like the EPU all the above planning and research units are undertaking training programmes to upgrade the technical competence of their staff.

228. The process of planning in Malaysia has evolved from a public capital budgeting approach towards more comprehensive planning of the development of the economy and more specific attention to the formulation

of programmes for individual sectors. The range of planning has widened to include not only public investment but also government policies designed to stimulate the development of the private sector. In addition, improved planning techniques are being employed in plan formulation. Continued improvement of planning in the future will require further strengthening of basic economic and financial statistics and increased technical competence among planning officials.

NATIONAL OPERATIONS ROOM

229. The government has evolved and established a technique for reporting and controlling operations related to development in Malaysia which is regarded by many as being unique and effective. A National Operations Room functions close to the office of the Deputy Prime Minister, who is also Minister of National and Rural Development as well as Minister of Defence. In the Operations Room are complete, current and uniform reports on progress in public development programmes arranged by state and district which show the development activities of all levels of government. The reporting form emphasizes plan performance in the public sector by showing project status alongside previously set targets. Maps, charts, diagrams, films and tape recordings supplement the verbal and statistical reports.

230. The information in the National Operations Room is kept up to date by the various ministries, departments and authorities, each being responsible for reporting its own activities, expenditures, successes and difficulties. Periodic meetings with representatives from these ministries and departments enable the Deputy Prime Minister and other Cabinet Ministers quickly to identify and resolve emerging problems.

STATE, DISTRICT AND KAMPONG RURAL DEVELOPMENT COMMITTEES

231. Each of the eleven States of the former Federation of Malaya has a Rural Development Committee and a State Operations Room. Similar committees and operations rooms have been established in Sabah and Sarawak. These committees parallel somewhat the National Development Planning Committee and each State Operations Room duplicates for that state the information available in the National Operations Room. Within states, every district/division also has a District/Divisional Rural Development Committee and a District Operations Room. Some kampongs also have rural development committees, as well as information centres along the line of operations rooms.

232. These regional and local operations rooms serve as stopping points for the Deputy Prime Minister during his many inspection trips. Local

officials describe their development activities, progress and problems in the presence of officials from the Federal Ministries concerned. Frequently the Deputy Prime Minister decides on the spot the corrective action required to meet development problems.

233. The operations rooms and the techniques for using them originate in the Ministry of National and Rural Development. The objective is to utilize for peaceful development purposes some of the successful military operations techniques used during the Emergency in 1948-60. Operations room techniques are at present being shared with a growing number of other countries seeking methods to improve their information, control and decision-making activities for development.

III.—CO-ORDINATING DEVELOPMENT EFFORTS

234. While major institutional changes in the existing national, state and district development planning committees are not envisaged, it is necessary to improve communications with the states and local authorities and to promote better appreciation of national requirements. This understanding is particularly important in regard to such areas as the determination of priorities among various development programmes and the allocation of federal and state funds for overall development.

235. In the formulation of the Plan, the total available financial resources of federal and state governments and public authorities have been taken into account. In view of the stringent financial situation confronting the country and the need to make maximum possible progress towards the attainment of the Plan objectives, it is of the utmost importance that state governments and public and local authorities utilise their resources in accordance with the priorities of the Plan.

236. This necessitates close co-ordination by all levels of government and clear understanding of the significance and priorities fixed for various programmes in the Plan. Clear-cut directives and planning guidelines will continue to be issued to state governments and public and local authorities for guidance in implementing their development programmes. This does not imply a rigid and inflexible system of co-ordination. Rather, it will be designed to secure the most efficient use of resources by all levels of government in the context of national development.

237. The NDPC and EPU will help state governments and local authorities to improve planning and implementation procedures. This will be effected through, for example, short-term assignment of federal officers to the states. Field tours will continue to be undertaken by members of the NDPC to visit projects in progress and to assist ministries, state governments and local authorities in resolving their development problems. These

arrangements will develop greater partnership and closer understanding between the central and state governments and ensure effective implementation and smooth administration of development programmes.

IV.—CO-ORDINATION WITH THE PRIVATE SECTOR

238. Co-ordination between the government and the private sector will be established primarily through the Advisory Committee to the NDPC referred to in paragraph 225. The Committee will meet from time to time to discuss problems encountered in the implementation of those aspects of the First Malaysia Plan for which the private sector has the main operational responsibility and to seek means of overcoming difficulties.

V.—ESTIMATED COSTS AND STANDARDS OF PROJECTS

239. One of the important aspects for successful implementation of the First Malaysia Plan is careful designing and costing of projects. In the next five years, the Plan will be implemented under conditions of financial stringency. Extreme care and rigorous standards of economy will therefore be applied in preparing and implementing the Plan. The Development Estimates Sub-Committee of the NDPC will meet regularly to screen estimates of costs and to ensure adequate advance planning of projects. Instructions have been conveyed to state governments, operating ministries and departments that plans and designs for construction projects should be strictly based on functional needs and their costs estimated accurately. Standard plans will be used where appropriate to save time and costs and government departments will use locally manufactured materials and equipment to save foreign exchange as well as to promote industrialisation through import substitution.

VI.—IMPLEMENTATION AND EXTERNAL ASSISTANCE

240. Because of the tightness in public sector finances anticipated during the coming five years, those public investment projects which are eligible for foreign grant or loan financing must be financed in this manner whenever possible. Implementation of these projects must therefore be geared to the receipt of foreign assistance. Some projects involving large capital import requirements, e.g., irrigation, power, transport and communications, road building equipment, telecommunications, water supplies and other plant and machinery, will not proceed until assistance is obtained.

241. Since a considerable part of public investment under the Plan will depend on the availability of financial assistance for its implementation, it is essential that there be a sufficient portfolio of projects properly studied

and planned in advance to qualify for external assistance. The Treasury and the EPU, in consultation with the operating ministries and departments, will prepare project briefs on a regular and continuing basis for submission for loans or grants from friendly countries.

242. Apart from external capital assistance by way of grants or loans, the government requires technical assistance in implementing the various development programmes in the Plan. Specific programmes, which will entail the use of technical and other assistance, will be identified in the course of implementation, although some of the urgent requirements have already been indicated in Chapter V. The programming of technical assistance will therefore be an integral part of development planning and implementation. The government will ensure that the services received from the UN and its specialised agencies, the Colombo Plan and various organisations such as Ford Foundation, CARE/MEDICO, U.S. Peace Corps and Australian, British, Canadian, Japanese and New Zealand volunteers will be fully utilised in operations, training and institution-building. The EPU as the co-ordinating authority for technical assistance will ensure that over the next five years requests for technical assistance are closely related to the implementation of programmes approved under the Plan. Programming and evaluating the benefits and costs of technical assistance will also be more critically and systematically undertaken.

VII.—IMPROVEMENT IN PROJECT EVALUATION AND MANAGEMENT

243. Another requirement of successful plan implementation is an improvement in project evaluation and management. Considerable progress has already been made in ensuring expeditious implementation of projects. A system of progress reporting is also being maintained in operations rooms throughout the country where bottlenecks can be clearly identified and quickly eliminated. However, there is often a temptation to judge results and performance by the amount of expenditure incurred or physical construction targets achieved. This may distort the quality of performance and the purpose of the Plan. In assessing the progress results of the Plan, the government will distinguish between progress in merely constructing physical facilities and successful attainment of the more fundamental objectives of the Plan.

244. Constant evaluation of project management is also necessary. The timing in the construction of health centres, clinics and schools will be arranged so as to ensure that the personnel required such as doctors, nurses and teachers are available to staff these projects. Similarly the government will take steps to ensure that land provided to settlers and farmers is cultivated, loans granted are properly utilised and roads constructed are

maintained. All these programmes require a continuous process of appraising results and performance to permit adjustments in policies and projects where circumstances demand.

VIII.—IMPROVEMENT IN DEVELOPMENT ADMINISTRATION

245. Although implementation of the various development programmes has been impressive in terms of administrative capacity to execute projects, there is still room for improvement. Apart from the need to concentrate on project evaluation and on preparation of projects for foreign financing as described above, arrangements have been made to review public administration in the country with a view to increasing efficiency and reducing costs.

246. With a rapidly expanding programme to be implemented under the First Malaysia Plan, the attention of the government will be focussed on overcoming the shortage of trained personnel, improving and modernising personnel policies and increasing the efficiency and qualitative performance of its public servants. A study on public administration has recently been carried out to examine these problems and recommend measures for improvement. The study confirms that actions already taken by the government are in the right direction. Recommendations for further improvement are now being examined in detail and will be implemented as they are approved by the government.

247. The training programmes for all levels of the civil service will be improved and intensified. A training programme in development administration will be instituted and used primarily for post-entry training of civil servants. The professional competence of civil servants will also be improved by the provision of opportunities for them to remain in certain areas of government activities by extended postings and specialisation.

248. A major innovation for the improvement of administration will be the establishment of a special Development Administration Unit in the Prime Minister's Department staffed by experienced senior officers and professional management analysts.This Unit will plan and guide the major programmes of administrative reform and improvement. It will focus on personnel and career development, expenditure control, purchasing and contracting in order to achieve more delegation of authority, co-ordination and speed of action and full value for monies and efforts spent.

CHAPTER VII

Agriculture and Rural Development

249. The development of agriculture will continue to be given strategic importance by the government, for progress in this sector is crucial to the overall development of the economy. The primary reason for this is that agriculture presents significant opportunities for generating increases in national income and employment. A considerable extent of undeveloped land, sizable unexploited forest reserves and a wide range of possibilities for new and improved lines of production in the rural economy all contribute to these opportunities. Furthermore as a majority of the population depends on agriculture for a livelihood, significant increases in *per capita* income and purchasing power in this sector will lead to a rise in total effective demand which in turn will contribute to accelerated growth in economic activity throughout the country. Concurrently, a prosperous and rapidly growing agricultural sector will lead to increases in food and raw material supplies which will help enhance export capacity and enlarge opportunities for viable industrial development. Significant expansion of food supplies will also raise nutrition levels and insure against increases in the cost of living.

I.—PROGRESS DURING 1960-65

250. Efforts exerted in the recent past both by government and private enterprise have resulted in a considerable degree of agricultural development. A brief review of the progress which has been achieved in the last five years serves to indicate the positive strides which have been made in agricultural development.

251. The growth in production of a number of commodities in the agricultural sector is shown in Table 7-1. Agricultural production grew at the rate of 4.8% per annum between 1960 and 1965. This is 1.8% higher than the rate of population growth but 1.6% lower than the rate of growth of gross domestic product at constant factor cost.

TABLE 7-1

MALAYSIA: PRODUCTION INDICES, 1960-65

(1960=100)

Commodity	*Weights** (%)	*1961*	*1962*	*1963*	*1964*	*1965*	*Annual growth rate 1960-65* (%)
Rubber	62	103	105	110	114	117	3.2
Palm oil and kernels	2	103	117	135	132	149	8.3
Copra	4	94	84	81	76	71	−7.0
Padi	8	108	103	111	99	112	2.3
Pineapples	11	100	109	118	139	152	8.7
Tea		103	110	106	111	117	3.4
Sago flour		122	156	180	222	241	9.2
Pepper		210	239	228	180	236	18.8
Hemp		111	92	97	108	116	3.0
Fresh fruit		n.a.	n.a.	n.a.	n.a.	120	3.6
Fresh vegetables		n.a.	n.a.	n.a.	n.a.	118	3.4
Tobacco		n.a.	n.a.	n.a.	n.a.	122	4.1
Livestock (including poultry)	4	112	124	133	142	154	9.1
Fish	5	109	122	132	138	144	7.5
Timber (round)	4	107	114	137	155	166	10.8
Aggregate production index	100	105	107	115	120	127	4.8
Export production index	75	104	107	115	122	128	5.1
Domestic production index	25	107	108	114	111	121	3.8

252. The growth of production of domestically consumed products was in the region of 3.8% per annum, indicating that production not only kept pace with population growth but that there was some import substitution. The output of livestock and fish products expanded at impressive rates: 9.1% and 7.5% per annum respectively. The rate of growth in the output of export commodities was 5.1% per annum. In this group, oil palm production expanded at 8.3%, pineapples at 8.7% and round timber at 10.8% per annum. With regard to the last item, the most rapid increases took place in Sabah and Sarawak as a result of growth in export demand.

253. The structure of the agricultural sector, however, remains heavily biased towards natural rubber. The fall in the unit price of rubber from 107 cts per lb in 1960 to 69 cts in 1965 reduced value-added in rubber production from $1,233 million to $1,015 million in Malaya. Although the encouraging rate of growth of output of other commodities is gradually reducing the relative importance of rubber in the sector, the

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* The weights selected are the value-added by each commodity expressed as a proportion of the total net output of the agricultural sector in 1960.

rise in value-added of these other commodities was barely sufficient to offset the decline in rubber. Consequently value-added in current prices by the entire agricultural sector grew at a rate of only 0.3% per annum. Progress in each major line of agricultural activity is discussed in the following paragraphs.

RUBBER

254. The output of rubber, the most important agricultural commodity in the economy, increased from about 778,000 tons in 1960 to an estimated 913,000 tons in 1965. Despite the substantial increase in physical production, however, the value of exports declined from about $2,000 million in 1960 to an estimated $1,455 million in 1965, reflecting the drop in unit price during the same period.

255. This drop in the export unit price was brought about by strong and increasing competition from synthetic rubber. The intensity of this competition is evidenced by decreases in the cost of production of synthetic rubber and the widening range of uses in which synthetic rubber can be substituted for natural rubber. In fact, synthetic rubber has since the end of World War II accounted for an increasing share of total rubber consumption outside the Communist countries. This share expanded from 47% in 1960 to 55% in 1964.

256. Output in Malaya increased from about 706,000 tons in 1960 to an estimated 824,000 tons in 1965. This increase was due primarily to the attainment of maturity by high-yielding rubber trees planted during the 1950s under the rubber replanting programme. Taking estates and smallholdings together, the average annual yield per acre increased from 545 lbs in 1960 to about 675 lbs in 1965.

257. The total annual acreage planted and replanted increased from 192,000 acres in 1960 to 251,000 in 1963. In the last two years, it dropped to about 220,000 acres in 1964 and 200,000 acres in 1965 because of the substantial completion of replanting by estates. Smallholders' planting and replanting increased from 95,000 acres to 140,000 acres during 1960-65. This increase has been primarily the result of the smallholders rubber replanting programme and the activities of the Federal Land Development Authority (FLDA), as well as those of fringe alienation and other programmes in opening up new land for rubber cultivation. It is estimated that about 80% of total estate acreage and about 50% of smallholding acreage will be under high-yielding material at the end of 1965.

258. Prior to 1962 the replanting grant for smallholders was $600 per acre. In view of the insufficiency of the grant for a substantial proportion of smallholders, it was raised to $750 per acre for smallholders with more

than five acres and $800 for those with five acres and under. The increased number of smallholders wishing to plant and replant with the assistance of the increased grant has been most encouraging.

259. Rubber output in Sarawak fluctuated between 44,000 tons and 50,000 tons during the period. Output in 1965 is estimated at 49,000 tons. The industry consists almost entirely of smallholders. The average yield is about 350 lbs per acre and management and cultivation practices are poor. A subsidized rubber planting scheme was introduced in 1956. Subsidies are at the rate of $400 per acre for new planting and $600 per acre for replanting. About 80,000 acres will be planted with high-yielding material by the end of 1965 under the scheme, making up about 30% of total acreage.

260. The output of rubber in Sabah increased slightly from 22,000 tons in 1960 to 25,000 tons in 1965. However, planting and replanting with high-yielding material have been widespread under the impetus of subsidized government schemes. Grants are at the rates of $120 per acre for new planting and $550 for replanting. Acreage under high-yielding material increased from 65,000 acres in 1960 to 131,000 in 1964, thus making up about 54% of total acreage. Much of the high-yielding material planted should come into production in the next five years. A difficult problem which confronts the industry and which must be solved as a matter of urgency is the acute shortage of labour for tapping. It is estimated that 10,000 more workers are needed.

PADI

261. Padi, the staple food of the population, occupies the largest acreage planted in the agricultural sector after rubber. Output increased from about 940,000 tons in 1960 to 1,050,000 in 1965, an annual rate of 2.3%. About 80% of total output is produced in Malaya.

262. Production of padi in Malaya increased from 760,000 tons in 1960 to 860,000 tons in 1965, although it fell significantly from 850,000 tons in 1963 to 730,000 tons in 1964 because of abnormal weather conditions during the latter year. Domestic output satisfies about three-fifths of total consumption. Increased production over the five-year period has been brought about by a number of factors. The acreage harvested increased from 800,000 acres to 840,000 between 1960 and 1965, while the acreage double-cropped rose from 11,000 acres to an estimated 57,000 acres. There has also been an increase in average yields per acre. The average yield of wet padi rose from 399 gantangs per harvested acre in 1960 to 420 in 1965. The expansion of drainage and irrigation facilities together with the provision of subsidies for fertilizers and improved seeds have played a

major role in the above achievements. With the recent introduction of new varieties such as Malinja and Mashuri, further notable advances in the productivity of padi cultivation can be expected in the years ahead. Significant progress was also made in improving storage and milling facilities.

263. In Sabah the rate of output growth was 2.8% per annum, while in Sarawak production appears to have grown at 1.5% per annum. Headway was made in increasing wet padi cultivation as part of the policy of settling hill people and coastal and riverine people, whose lot can be improved by giving them a secure basis on wet padi land. However, both States will continue for some time to depend on imports for about half of their consumption requirements.

COCONUTS

264. Unlike the other major agricultural products in the economy, which experienced some degree of growth in output, overall copra production declined from about 141,000 tons in 1960 to 107,000 tons in 1965. This decline is entirely attributable to the fall in Malayan output, since production in the Borneo States increased during the period. The output decline in Malaya was due to decreasing yields as a result of the deterioration of coconut holdings, poor management and the high proportion of unproductive palms. However, attention was given during the period to the initiation of programmes for the rehabilitation of the industry and the replacement of old coconut palms with new high-yielding varieties. Increases in production should be achieved by the end of the 1960s as a result of these efforts. Some progress was also effected in the inter-cropping of coconuts with other crops, such as pineapples, bananas and maize.

OIL PALM

265. The cultivation of oil palm is at present concentrated in Malaya. The estate acreage in Malaya expanded from 135,000 acres in 1960 to about 200,000 acres in 1965; in addition about 26,000 acres were planted in FLDA land settlement schemes. Production of this crop grew more rapidly than that of any other agricultural commodity, increasing from about 90,000 tons in 1960 to an estimated 135,000 tons in 1965. Yields on the larger estates have exceeded expectations, being about 10 tons per acre.

266. The potential for extensive cultivation of oil palm is also good in Sabah and Sarawak. The exploitation of this potential has already begun in Sabah, where acreage has increased from 1,000 acres in 1960 to 20,000 acres in 1965.

OTHER FOOD CROPS

267. Growth in the production of other food crops averaged more than 3% per annum over the five-year period. In Malaya the acreage under tapioca, sweet potato, sago, sugar-cane, etc. increased from 118,000 acres to 152,000 acres between 1960 and 1964, while that under fruits such as pineapple, banana, durian, rambutan, mangosteen and citrus rose from 213,000 acres to 223,000 acres. In addition progress was made with regard to yield and quality and also in the development of suitable methods of processing and utilization. Under the subsidized fruit rehabilitation scheme, 7,116 acres of fruit holdings were planted with high-yielding trees while 10,770 acres were replanted or rehabilitated.

LIVESTOCK

268. Livestock production is estimated to have grown by 9.1% per annum. The most striking progress took place in the poultry and pig industries. In Malaya poultry production more than doubled and egg production nearly trebled between 1960 and 1965. With the significant increases achieved in poultry production, imports of poultry remained stable at about two million birds from 1960 to 1964, despite the fact that poultry consumption in Malaya increased from 5 lbs *per capita* to 12.5 lbs over the same period. Imports of eggs for domestic consumption fell from 165 million in 1960 to 68 million in 1964 although average consumption rose from 30 eggs per annum to about 100 eggs. The production of pork rose by 22% between 1960 and 1965. In Sabah the value of pig production increased from $4 million in 1960 to $5 million in 1965. The output of beef in Malaya increased by 30% over the period 1960-65, while mutton registered no growth.

269. The initiative of the private sector in bringing about the above achievements has been well sustained by the efforts of local feed companies and the implementation of government schemes through which breeding stock and other services have been provided. Furthermore, the success with which the disease of Ranikhet has been brought under control has facilitated the undertaking of specialised large-scale operations in poultry and egg production.

FISH

270. The volume of marine fish landed increased from 160,000 tons in 1960 to about 218,000 in 1964 with the bulk of the catch from Malaya. During the period concerned, landings in Malaya rose from about 140,000 tons to 190,000. This expansion is the result of the mechanization of fishing boats, widespread use of nets made of synthetic fibre, which yield better catches and are easier to operate, and improved fishing techniques. At the

same time, the production of fresh water fish increased from 24,500 tons to 25,500 tons, while the acreage of fish ponds expanded from 1,200 acres to 2,400.

271. The period 1961-65 also witnessed the advance of fish processing with the production of frozen tuna and fish meal in Penang, frozen fish in Perak and frozen prawns in Sabah.

LAND DEVELOPMENT

272. Together with the advances which were achieved in the output of the nation's principal agricultural commodities, considerable progress was made in bringing new land into cultivation, thus facilitating the attainment of a greater contribution by the agricultural sector to national economic development in the years ahead.

273. It is estimated that in Malaya 124,000 acres were opened up during 1961-63, providing for the settlement of 21,000 families. In addition, 116,000 acres of new land were opened to supplement the existing holdings of 23,000 farm families. The major part of new settlement was the result of the operations of the FLDA, under which 145,000 acres were opened during 1961-65, providing for new settlement of 12,000 families. The remaining part of land development activity was mainly the result of fringe alienation, controlled alienation and new block planting schemes of state governments.

274. In Sabah at the end of 1965, some 150 minor land development schemes and 15 major land development schemes are in progress and a further five major schemes are under investigation. These major land development schemes provide for planting rubber and oil palm. They will cover approximately 51,000 acres and cater for about 4,000 families.

275. In Sarawak two main schemes were undertaken. One was to assist the migration of native farmers from regions in which there was a land shortage to areas where land was more plentiful. The second was to assist farmers to settle on a former rubber estate. With the commencement of the 1964-68 State Development Plan, a more vigorous effort has been initiated for land settlement.

II.—LONG-TERM OBJECTIVES

276. In the light of the natural resource pattern of the economy, it is imperative that, despite the progress which is already being made, agriculture should play an even more important role in the overall growth of the economy. To enable this requirement to be met, it is necessary over the long-term to obtain:

(i) an accelerated expansion of output and employment in the agricultural sector by increasing the land area under cultivation;

(ii) a progressive increase of *per capita* output and income in the agricultural economy by raising the productivity of all factors of production employed in the sector;

(iii) a broadening of the base of the agricultural sector to ensure that its annual contribution to overall development will be less subject to the market vicissitudes confronting individual commodities, especially rubber;

(iv) an enhancement of the ability of the agricultural sector to stimulate industrial development through the production of those commodities which make possible the viable development of agriculturally-based industrial enterprises.

277. Available evidence indicates that these long-term objectives can be attained. It has been established that in Malaya there are some 9.4 million uncultivated acres of land suitable for agriculture. Of these, about a third are thought to be of especially high fertility. Wide differences exist among holdings in the yields of several crops and average yields of some crops are low as compared with average yields in other countries. These facts suggest that a wide scope exists for increasing average crop yields through more attention to soil fertilization, weed control, varietal improvement, insect and disease control and water supply and drainage. Furthermore, there is much scope for increasing productivity per unit of land and labour through off-season cropping, inter-cropping and mixed farming with animal husbandry.

278. The prospects for agricultural diversification are also good. By the end of the decade some headway will have been achieved in crops such as oil palm, rice, sugar and fruit. With the intensification of research into those crops which are currently grown but are not cultivated on a commercial scale, further possibilities for exploitation will arise in time.

279. As for the creation of linkages between agriculture and agriculturally-based secondary industries, there are promising possibilities for the encouragement of fertilizer, animal feed and food industries. Particularly promising food industries include dairy products and other processed foods as well as tapioca starch industries.

III.—PROBLEMS OF AGRICULTURAL DEVELOPMENT

280. Exploitation of the scope that exists for attaining the long-term objectives, however, calls for attention to the following formidable problems.

(i) There is currently inadequate technical capacity in the government and the private sector for bringing about the enlargement and strengthening required of the agricultural economy. A massive commitment to agricultural research and education is therefore imperative.

(ii) The price prospects for natural rubber, which is the mainstay of the agricultural sector and of the whole economy at present, are not bright. If the contribution of agriculture to national economic development is to be increased, diversification of agricultural production is imperative. This process, which is already underway, must be accelerated.

(iii) There is a lack of incentives for many individual agriculturalists to expand their enterprises and to improve their techniques of production. This problem arises from limited know-how, the small size of production units, high marketing costs both for inputs and outputs, lack of credit on reasonable terms and unfavourable tenure relationships. In Sabah and Sarawak a special problem is the practice of shifting cultivation by a large part of the rural population, resulting in inefficient use of land.

IV.—OBJECTIVES OF AGRICULTURAL DEVELOPMENT, 1966-70

281. In the light of the above problems, the First Malaysia Plan will:

(i) increase the quantity and enhance the quality of agricultural educationists, researchers and extension agents so as to expand the number of skilled farmers and improve the skills of all individual members of the agricultural community;

(ii) support on an intensive and continuing basis research on agricultural, forestry, fisheries and livestock products so as to break presently known yield barriers and develop improved patterns of production, processing and marketing that will utilize most economically the human, land and water resources of the country;

(iii) stimulate the adoption by the agricultural community of improved practices and patterns of production over as much of the present and future cultivated area of the economy as possible and encourage diversification;

(iv) increase the acreage under cultivation in the country, not only to expand physical production but also to provide employment opportunities for the rapidly growing rural population;

(v) correct existing institutional shortcomings in the fields of land tenure, credit, the processing of agricultural commodities and marketing so as to enable the agricultural community to be adequately rewarded for its efforts and to have access at reasonable cost to the means of production.

282. The shortage of skilled agricultural specialists and the deficiency of applicable agricultural knowledge are the most stringent limitations on output growth. Within the framework of the above objectives, the main emphasis of the First Malaysia Plan will therefore be given to building up agricultural education and research.

283. The relative concentration of effort that is planned for agricultural education and research during the period of the First Malaysia Plan, however, does not mean that little attention will be given to the other objectives of agricultural development. Excluding the provision of government grants for rubber replanting in Malaya, more resources than were expended in the last five years will be devoted to extension services and to the provision of direct economic incentives, particularly to the smallholding community. But, in view of the limitation of qualified staff, it will not be possible to undertake so extensive a programme as is desirable. It is envisaged that by concentrating attention on strategic economic areas it will be possible not only to bring about significant output increases in these areas but also to generate demonstration effects on agricultural practice in neighbouring areas. With the experience gained by the government in these experimental areas and the increased output of extension personnel during the next few years, the government will be in a strong position in the Second Malaysia Plan period to implement further extension and incentive programmes that will cover a larger proportion of the countryside.

284. The government programme for land development will also be larger than that undertaken in the last five years. In addition, private estate development will be encouraged. The main obstacles to the implementation of a more sizable programme are shortages of trained managers and extension workers to run the land development schemes. However, with the successful implementation of the agricultural education and research programmes during the next five years, which will increase the output of such personnel, the government and the private sector will be in a position to undertake a much larger programme of land development under the Second Malaysia Plan than is envisaged for the next five years.

285. Recognizing the stultifying effects which existing institutions have on the motivation of individual agriculturalists to improve their lot, the government will continue to strive to bring about the necessary modifications in the institutional structures of credit, land tenure and marketing. The rural co-operative movement and Bank Bumiputra will be strengthened and given the facilities required to improve the availability of rural credit. Once these

steps are taken, rural producers will have greater access to agricultural credit at reasonable cost. Rural producers will also benefit from the activities of the Federal Agricultural Marketing Authority (FAMA), whose function will be to ensure that the agricultural community obtains a fair reward for its productive efforts. With regard to land tenure, arrangements will be made through the Federal Land Consolidation and Rehabilitation Authority (FELCRA) to extend existing holdings to economic size. In addition, land tenancy legislation will be strengthened. At present, high rentals and insecure tenure reduce motivations for improvement. The adoption of better farm practice is impeded because farmers' net incomes are depressed by the level of rents to an extent which leaves no margin for saving or investment. The tenant also lacks that minimum security of tenure which would encourage him to invest savings in improvements or would encourage a creditor to grant a loan.

V.—PHYSICAL PRODUCTION TARGETS

286. As the agricultural programme for 1966-70 is principally geared to the creation of the requisite capacity for accelerated development in the future and as the major agricultural commodities to be promoted are perennials with long gestation periods, investment during the next five years will not in general yield results until later. Output growth during the period 1966-70 will be mainly the result of investment in the last few years. Some of the 1966-70 investment in short-term crops, however, will produce returns during the Plan period. An indication of the principal production targets is given in Table 7-2.

287. Rubber production will increase by 37% between 1965 and 1970 or at an average annual rate of 6.6%, as a result of the high rate of rubber replanting in the last seven years. Planting and replanting with high-yielding material during this Plan period will generate further increases after 1970.

288. The output of rice is expected to increase at an even higher rate. With the recent completion of several important irrigation and drainage schemes, increased double-cropping and improved yields, output will expand by 7.6% per annum between 1965 and 1970. Despite the increase of population, this will enable the share of domestic production in total consumption to rise to over 70% in Malaya. However, Sabah and Sarawak will continue to be heavy importers.

289. Of all agricultural commodities, the most impressive increase is expected to be shown by oil palm, for which output is likely to increase by about 14% per annum. With the continued replacement of rubber with oil palm on many estates and sharp increases in new planting, particularly in government land development schemes, the output of oil palm products will

TABLE 7-2

PROJECTED PRODUCTION INDICES, 1965-70

(1960=100)

Commodity	*Weights* (%)	*Indices* 1965	1970	*Annual growth rate* (%)
Rubber	62	117	162	6.6
Palm oil and kernels	2	149	285	13.9
Copra	4	71	75	0.9
Padi	8	112	162	7.6
Pineapple	11	152	245	7.9
Tea		117	134	2.9
Sago flour		241	333	6.8
Pepper		236	297	4.7
Hemp		116	130	3.0
Fresh fruit		120	156	5.4
Fresh vegetables		118	146	4.3
Tobacco		122	158	5.3
Livestock (including poultry)	4	154	200	5.5
Fish	5	144	192	6.0
Timber (round)	4	166	180	1.6
Aggregate production index ..	100	127	166	5.5
Export production index ..	75	128	166	5.3
Domestic production index ..	25	121	166	6.6

continue to grow very rapidly during the period 1970-75. The output of timber is conservatively expected to increase by 1.6% per annum over the next five years. Malayan timber output will increase at about 7% per annum with the implementation of the new forest policy and accelerated land clearance. Output from Sabah is envisaged to grow much less rapidly than in the recent past, when licences for timber clearance were given out very freely. Sarawak swamp forest output will fall following a reduction in the maximum permissible rate of exploitation but production from the hill forests has been increasing rapidly and this growth may continue for some years.

290. With increased logging, considerable expansion is expected in local wood processing industries, particularly in Malaya. This will enable import substitution and export expansion to be accelerated in wood products, particularly plywood.

291. The output of fresh fruit and vegetables is projected to grow by 5.4% and 4.3% per annum respectively. The principal influence will be population

growth, import substitution and growing export possibilities for some products such as bananas.

292. The annual rate of growth of output of livestock products is projected to be 5.5%, while that for fish is likely to be about 6%. These rates are lower than those experienced during the past five years, when output expanded by 9.1% and 7.5% annually. The main reason for the lower growth rates expected is that many opportunities for import substitution have been exploited and future output expansion will be geared mainly to the growth of domestic demand. However, as progress takes place in the processing of such products export possibilities should emerge, with consequent inducement for further expansion of output.

VI.—PROGRAMMES UNDER THE FIRST MALAYSIA PLAN

AGRICULTURAL RESEARCH

293. Applied research will be given pre-eminence over basic research. The existing inventory of facts and information discovered by basic research all around the world is vast. Furthermore, to the extent that this information is generally valid and capable of being transferred from other more developed countries, Malaysia can concentrate on applied research which seeks to use the results of basic research to solve specific Malaysian problems. This endeavour will continue to be a co-operative one among the government, statutory bodies, the University of Malaya and private organisations.

294. As the availability of manpower for agricultural research is severely limited, the government's programme in the coming five-year period will be guided by the following priorities. First priority will be given to research on inter-cropping, off-season cropping and mixed farming and to problems relating to processing and marketing, as negligible attention has been given to these matters in the past. Second priority will be given to research on those local crops for which insufficient detailed research has been undertaken so far but which probably can be grown on a larger scale in the country. Third priority will be accorded to crops which are widely cultivated at present, so as to raise their maximum expected yields. The fourth priority will be devoted to investigations into those crops which are less known locally.

295. Within the framework of the priorities set out above, the allocation for research in Malaya is $16.6 million. The allocation covers rice and rice-field crop research, dryland-crop research, research into the production and processing of food crops, soil surveys and soil fertility and conservation studies. The corresponding allocations for Sabah and Sarawak are $4.5 million and $1.7 million respectively.

PLANT PROTECTION SERVICE

296. A sum of $0.4 million will be spent for the establishment of checking stations at the main entry points into Malaya to prevent the entry of plant material which may be carrying dangerous pests and diseases.

AGRICULTURAL EDUCATION

297. The amounts to be expended are $31.9 million for Malaya, $0.8 million for Sabah and $4.9 million for Sarawak. The programme will be geared to expanding the output of extension workers, field supervisors and specialists. The ultimate objective is to have one extension worker for every 500 acres, one field supervisor for every four extension workers and one professional specialist for two to three field supervisors. For this purpose the allocations are to be used for the establishment of 12 agricultural schools at upper-secondary level in Malaya, the expansion of the College of Agriculture at Serdang, the establishment of a second agricultural college on the East Coast of Malaya and the expansion of the Faculty of Agriculture, University of Malaya.

298. In Sabah 16 rural training centres have already been established and a further six centres will be set up, providing one training centre for every district in the State. For Sarawak, five Farm Institutes are to be set up to provide training for primary school leavers. In addition, short-term practical agricultural and home management training will be given to farmers and their wives, the former at agricultural stations and the latter at Women's Institutes. The Joint Agricultural Training School, currently under construction, will help increase the output of extension workers.

299. To ensure adequacy in the number of middle-level agricultural personnel in Sabah and Sarawak and to ensure the establishment of a sufficient base of potential entrants for training at the professional level, an allocation has also been made for work to commence on a third agricultural college to be located in either Sabah or Sarawak towards the end of the Plan period.

AGRICULTURAL EXTENSION

300. A sum of $10.6 million will be spent in Malaya for the provision of accommodation, transport and training facilities for extension agents and the provision to Farmers' Associations of pest control equipment, water pumps and accessories, harvesting and processing equipment and drying and storage facilities. Through the provision of such equipment, extension agents will endeavour to educate farmers in the use of modern technology in the production and processing of their crops.

301. The allocations for improving and expanding accommodation, transport and training facilities for extension agents in Sabah and Sarawak are $0.4 million and $1.5 million respectively.

CROP SUBSIDIES

302. The agricultural crop subsidy programmes have been established to stimulate the adoption of improved farm practices. In view of the low incomes of a majority of the farming community, it is necessary not only to educate farmers in the use of improved techniques but also to subsidize purchases of some of the inputs required by the new methods. Subsidies are to be given for the cultivation of rubber, padi, oil palm, fruit, coconut, citrus, banana, maize, groundnut, cashew-nut, pineapple and coffee. Of these crops, only rubber, padi, fruit, coconut and pineapple have been subsidised in the past; the cultivation of the remaining crops is to be encouraged for the first time, in line with the policy of government to stimulate diversification of agricultural production. These programmes call for allocations of $128.9 million for Malaya, $6.0 million for Sabah and $81.2 million for Sarawak.

303. The major subsidy programme of the government will continue to be the rubber replanting programme, under which land planted with low-yielding rubber may be replanted with high-yielding material or with certain other crops including oil palm. In Malaya, under the existing scheme which will terminate in 1970 and for which $94 million is allocated, it is estimated that in the estate sector about 220,000 acres will be replanted with rubber and 65,000 acres with other crops, mainly oil palm, and that about 300,000 acres of smallholding land will be replanted while 50,000 acres will be newly planted with rubber. With both estates and smallholdings, the annual rate of replanting will be lower than in the previous five years because of the substantial acreage that is already in high-yielding material. The acreage under high-yielding rubber on estates will increase from about 78% to about 89%, while the corresponding increase on smallholdings will be from about 50% to 65%.

304. About 54% of the total rubber acreage in Sabah of 250,000 acres is now under high-yielding material. The allocation to Sabah of $5.3 million is for the planting of an additional 40,000 acres and replanting of 5,000 acres. In Sarawak about 30% of the total acreage under rubber is in high-yielding material. The allocation of $61.0 million during 1966-70 is to finance planting and replanting of 105,000 acres.

305. The government is confident that the Malaysian natural rubber industry can continue to remain viable and productive in the foreseeable

future despite the competitive challenges it faces. This belief is held despite the realisation that the technology of synthetic rubber production will continue to improve and the world output of synthetic rubber and natural rubber combined will probably increase at a more rapid rate than world demand, driving prices downwards. Progress in rubber replanting and continuation of aggressive research into high-yielding hybrids, production techniques and uses of natural rubber will permit costs to be lowered so that Malaysian natural rubber can continue to be sold profitably at lower prices. As a result of these efforts, Malaysian natural rubber will continue to earn a net return for producers for many years to come.

306. At the same time, the possibility must be kept in mind that on many acres of Malaysian land some crop which will be more profitable than rubber can be grown. Oil palm appears at present to be one such crop in some cases, since it will probably yield higher net returns than rubber in the future and in any case offers an excellent opportunity to diversify Malaysian agriculture and reduce the risk involved in too heavy dependence upon rubber. The government has therefore adopted a policy of encouraging estates and smallholders to replace low-yielding rubber with oil palm rather than with high-yielding rubber wherever soils are suitable. The government has also ensured that FLDA plant oil palm rather than rubber in its land development schemes wherever this can be done.

307. Certain recent studies projecting commodity price trends even suggest that some of the land currently planted with high-yielding rubber might be more profitably used for oil palm. In fact, some estates have already begun to uproot young, recently replanted rubber and replace it with oil palm. The government is continuing to study the economics of this course of action and there is a possibility that in some cases it would be desirable to replace even recently replanted rubber with oil palm.

ANIMAL HUSBANDRY

308. The animal husbandry programme involves $28.0 million for Malaya, $2.1 million for Sabah and $3.7 million for Sarawak. This allocation is for research into ways of improving livestock production both quantitatively and qualitatively, education of farmers in poultry raising and animal husbandry, implementation of direct promotional measures at the farm level for improved livestock management and production practices, maintenance of an efficient animal health service and development of dairy colonies and grazing reserves.

309. An Animal Production Institute will be established in Malaya for research into pastures and the physiology and production of fast maturing

livestock. At animal husbandry stations throughout the country, the number of which will be increased during 1966-70, breeding schemes will be undertaken for the development of improved breeds of goats, sheep, buffalo, dairy cows, beef oxen and pigs.

310. The transmission to farmers of the results of the research activities of the government and knowledge pertaining to improved techniques of livestock husbandry and poultry raising will be carried out through extension services and training courses at animal husbandry stations and veterinary centres throughout the country. Provision has been included for the establishment of several additional veterinary centres.

311. With the object of assisting farmers to use improved breeds, selected stock of oxen, poultry, buffaloes and pigs will be distributed. In addition, the artificial insemination service in Malaya will be extended by the establishment of centres throughout the peninsula.

312. Continuing with the maintenance of an efficient animal health service, the quarantine stations at Port Swettenham and Butterworth will be expanded and quarantine kennels will be established at Kuala Lumpur and Johore Bahru and in Sabah and Sarawak.

313. Grazing reserves will continue to be developed in Malaya and Sabah. The development of two dairy colonies at Batu Arang in Selangor and Pantai in Negri Sembilan will be completed. The two schemes will cover about 2,800 acres and accommodate about 2,800 head of cattle. Besides the advantages of resettling dairy farmers and improving their production methods, the project will be useful for experimentation into large-scale tropical dairy farming.

314. At the moment few of the by-products of the animal slaughter industry are fully used. This represents a potential which can be tapped with significant income and employment effects. In order to demonstrate the economic and technical feasibility of animal by-product industries, the Federal Veterinary Department will operate in Malaya an abattoir service on a pilot basis. This service will undertake the slaughtering of meat animals on proper lines and the utilisation to the fullest extent possible of by-products. In conjunction with a co-operative association of poultry producers, a pilot poultry processing plant will also be established with facilities for cold storage. Such co-operative activity will enable producers to get a higher return for their efforts and overcome their marketing problems.

FISHERIES

315. The fisheries programme is aimed at expanding research; training fishermen to be more competent; assisting them to avail themselves of

improved equipment, gear and other facilities; helping producers to improve processing and marketing methods; and establishing the necessary infrastructure facilities for large-scale and efficient marine fishing. The programme amounts to $17.0 million in Malaya, $1.3 million in Sabah and $4.0 million in Sarawak.

316. If marine fish output is to be expanded significantly, it will be necessary to continue to encourage large-scale extension of fishing operations to distant waters. Such operations, entailing as they do the use of heavy motorised vessels, will require an expansion in the number of deep and well-equipped fishing harbours. With the resources of the Indian Ocean in mind, the largest allocation in the fisheries programme is for the development of fishing ports and the establishment of the necessary facilities for the handling, distribution and marketing of the catches in the north-west region of Malaya.

317. Attention will continue to be given to the development of more efficient gear and methods of fishing. In addition, the food technology research unit will be strengthened to help develop efficient methods to process and preserve fish. There will also be research on marine and inland fish biology and ecology.

318. In the field of education and extension, a Fisheries College is to be established in Penang. In Sabah a new fisheries training centre will be set up at Labuan. It is also proposed to build a marine fisheries school, similar to that in Penang, in Sarawak. To supplement the activities at these schools, fisheries mobile units will be set up. These units will visit fishing villages throughout the country to demonstrate the use of proper gear and equipment and disseminate information on the maintenance and repair of engines. An inland fisheries training centre is to be established at Bukit Tinggi in Pahang to enable a larger number of farmers to be trained in fresh water fish culture and management than is at present possible with the facilities at Kuala Kangsar in Perak.

319. To assist fishermen to purchase improved gear and to adopt improved methods for processing and marketing, fishermen's co-operatives will be provided with subsidies from the government in addition to credit. Fishermen's Associations will be set up and assisted. Government will also directly assist farmers to increase the size of their ponds, which at present are uneconomic, and to use chemical fertilisers to enhance the productivity of individual ponds.

FORESTRY

320. An effective long-term programme for exploiting existing forest areas, particularly in Malaya, will contribute in significant measure to the

generation of increased income and employment. Such exploitation, however, cannot be allowed to be excessive as a portion of the country's forests must be reserved to avoid the danger of sudden climatic changes in the country, safeguard water supplies and soil fertility and prevent flooding and erosion. A certain portion of forest land will be reserved for this purpose, while the remainder will either be developed for the production of timber on a permanent basis or cleared for crop production and livestock rearing. The areas under forest which will be required for the first two objects will be classified into protective and productive reserves respectively. The Forest Resources Survey, which has already started in Malaya, and the Land Capability Classification Survey, which will begin in 1966, will facilitate the necessary delineation.

321. With the object of encouraging efficient utilization of the products of the forest and ensuring the attainment of high yields from productive reserves, the programme for forestry will concentrate on research and silviculture. The programme amounts to $10.0 million in Malaya, $1.1 million in Sabah and $1.3 million in Sarawak, with the programme for Sarawak being devoted entirely to research.

322. A centre for forest products utilisation research will be established in Malaya, while forest plantation research, with a view to strain improvement and better disease control will continue in Malaya, Sabah and Sarawak. Work on the Forest Resources Survey will be completed by 1968. It is also anticipated that a Forest Inventory of Sabah will be finalised during the Plan period.

323. The United Nations Special Fund is assisting a number of Asian countries to experiment with the feasibility of establishing plantations of quick-growing conifer species. The government wishes to participate in this project and for this purpose provision is being set aside for one pilot plantation of 1,000 acres in Malaya. Experimentation with the establishment of pilot pulp wood and quick-growing timber plantations has already begun in Sabah and Sarawak.

324. In Malaya the management of productive forests to ensure high productivity will take the form of silvicultural work and afforestation.

DRAINAGE AND IRRIGATION

325. An expansion of the acreage under rice and rice-field crops, increased off-season cropping and improved yields will require more extensive irrigation and drainage facilities. For rubber, oil palm and coconut an expansion of cultivable acreages, inter-cropping and yield improvements will necessitate adequate drainage. In view of the importance of these objectives, a large allocation is being provided for irrigation and drainage

during the next five years. The allocation for Malaya is $319.2 million, which is about three times the amount expended during 1961-65, while the allocation for Sabah is $7.0 million, more than six times the 1961-65 expenditure, and that for Sarawak is $6.5 million, which is more than double the expenditure during the past five years.

326. The two biggest projects to be implemented will be the Muda and the Kemubu projects in Malaya. The Muda River project will cost $204 million and loan assistance from the World Bank will amount to $135 million. The project when completed will open up 131,000 new acres for double-cropping and also provide irrigation to permit double-cropping on 130,500 existing acres which are being used at present to grow a single crop of rice. An application has also been made to the World Bank to assist with the Kemubu project, which will cost about $40 million. This scheme will enable the entire project area of 55,000 acres to be converted from single to double-cropping. Both projects will bring about an increase in average net incomes of farmers in the areas concerned from about $140 per annum per acre to $430.

327. The benefits that will be achieved from the implementation of the Malayan programme, as compared with the results of the 1961-65 programme, are as shown in Table 7-3.

TABLE 7-3

MALAYA: DRAINAGE AND IRRIGATION PROGRAMME, 1961-70

(acres)

	Estimated, 1961-65	*Target, 1966-70*
Irrigation—		
Existing cultivated land improved	258,000	250,330
Uncultivated land rendered cultivable	34,000	674
Land rendered capable of being double-cropped ...	155,000	358,600
Drainage—		
Cultivated land improved	195,000	192,000
Uncultivated land rendered cultivable	33,000	100,920

328. The implementation of the Sabah programme will lead to 7,000 acres of existing padi land being improved and 10,000 acres being brought into padi cultivation for the first time. In addition, adequate drainage facilities will be provided in the Klias peninsula, which will enable a major settlement scheme to be started covering 3,600 acres and 300 families.

329. In Sarawak the programme will open up 7,800 acres of new land for padi cultivation and will improve 19,500 acres for the production of padi, coconut and other crops.

330. In view of the heavy cost of the irrigation and drainage programmes and the substantial benefits that will be realised by the farming community from these programmes, the government will seek the co-operation of beneficiaries in meeting the costs involved, through the levy of higher irrigation rates. Unlike drainage rates, these are nominal at present and fall far short of the level which would cover the capital as well as the operations and maintenance costs of irrigation projects. The increases that will be sought in irrigation rates, however, will be brought about gradually so as not to affect adversely the incentive of farmers to maximise the use of expensively provided facilities.

LAND DEVELOPMENT

331. The largest allocation of public resources in the agricultural sector will be for land development. Land development is a matter of great need and urgency. There is unused land in Malaya, Sabah and Sarawak, some unemployment in Malaya and some land hunger throughout Malaysia.

332. It is estimated that at least 65,000 families need to be settled on newly opened land in Malaya by the end of 1970, while a further large number requires additional land to supplement existing inadequate acreages. In Sabah and Sarawak, the goal is to settle 12,000 families and 11,750 families respectively on new smallholdings.

333. To meet these needs about 400,000 to 450,000 acres will have to be opened up in Malaya, 60,000 acres in Sabah and 80,000 acres in Sarawak. This is a massive programme by any standard but its achievement will enable a substantial number of families to find livelihood and homes on new land and the country as a whole to benefit in the years to come from a large increase in agricultural production, with accompanying growth in exports and import substitution.

334. In Malaya, the FLDA, which is the main agency of the government for the block development of new land, will complete work on 133,000 acres planted before 1966, develop an additional 32,000 acres on existing schemes and initiate new schemes covering 109,000 acres. In opening this new acreage, the main emphasis will be given to the cultivation of oil palm rather than rubber. Out of a total of 141,000 acres of new development during the Plan period, 103,000 acres will be opened up to oil palm, while 38,000 acres will be for rubber. Implementation of this programme will entail capital expenditure of $305 million.

335. With the work done in the last two years and the schemes to be implemented during 1966-70, a total of 21,250 families will be settled during the Plan period on FLDA schemes. At an average of six persons per family, this will involve a total of 127,500 people. Including those already settled

by the end of 1965, totalling 9,500 families, settlement on all schemes envisaged at the present time will amount to 34,450 families (including 3,700 families to be settled after 1970), with an estimated population totalling 207,000 people. Output from FLDA schemes will rise from 800 tons of palm oil and kernels in 1965 to 60,100 tons in 1970 and from 3,700 tons of dry rubber in 1965 to 88,700 tons in 1970.

336. In the past an average scheme has been about 5,000 acres, which provided for the settlement of some 400 families. The largest scheme ever to be undertaken will be the Jengka Triangle Project in Pahang, covering 150,000 acres, upon which work will begin during 1968. The feasibility of developing this area has been confirmed by the World Bank and a regional master plan is being prepared by consultants. It is hoped that assistance for this project will be provided by the World Bank.

337. The land development programme also calls for 150,000 acres catering for 21,000 families to be opened by other government land settlement schemes, including those for controlled alienation. In addition, land will be opened up through fringe alienation so as to supplement the acreages of those of the rural community who have insufficient land. Attention will be paid not only to undertaking new schemes but also to salvaging existing derelict schemes. For the latter purpose, a Federal Land Consolidation and Rehabilitation Authority will be set up. For all these activities an amount of $30 million has been set aside in the Plan. This supplements provisions made under the rubber replanting scheme for new block planting and under other agricultural programmes connected with development and extension of land for cultivation.

338. As its title suggests, the functions of the new Authority will extend beyond rehabilitation work. It will in time also arrange for the purchase and consolidation of existing uneconomic holdings and their subsequent distribution into economic size lots.

339. It is hoped that with the liberalization of state land alienation policies, permitting alienation to private companies, private estate development will meet the remaining need for new land settlement over the five-year period. The Federal Government will assist State Governments in formulating a reasonably uniform set of conditions which will be offered to potential investors, both local and foreign. These will be designed to attract as much new investment as possible for land development.

340. The government land development programme for Sabah entails investment of $27.8 million. Large areas will also be opened up by estates, in addition to the development that public agencies themselves carry out. While Sabah has vast areas of undeveloped land available for agricultural development, the best use of these areas has not as yet been determined.

However, the UN Special Fund Survey of the Labuk River Valley, northwest of Sandakan, which is nearing completion, should enable a development plan to be drawn up to maximize the economic potential of this area.

341. The government land development programme for Sarawak calls for redistribution of smallholdings in many areas, followed by block planting of rubber and other crops and the creation of new villages with amenities. A sum of $13.1 million has been set aside for land purchases, settlers' houses and village development, while the allocation for the planting of crops appears under the allocation for agriculture. In the case of Sarawak, too, it is hoped that private enterprise will open up substantial areas to agriculture.

AGRICULTURAL CREDIT

342. A large part of the credit needs of rural smallholders currently comes from private sources, including local shopkeepers, produce dealers and money lenders. Since these sources constitute a major means of obtaining credit for many farmers while at the same time local shopkeepers and produce dealers are a major outlet through which rural produce is marketed, credit is often available to the rural community only at high rates. The existence of additional sources of supply is therefore of the utmost importance if the rural community is to have sufficient access to capital at reasonable cost. For this reason, Bank Bumiputra has been established. In addition, it will continue to be the policy of government to support and encourage the development of the rural co-operative movement.

343. Government has already provided $5 million to launch Bank Bumiputra. The Bank will assist particularly in the creation, expansion and modernization of agricultural enterprises. It will do so by providing finance in the form of loans and advances to enterprises requiring assistance.

344. The amount earmarked in the First Malaysia Plan for the rural co-operative movement in Malaya is $16.5 million. This will be provided to rural co-operative societies in the form of loans. Together with their own resources, government assistance will enable rural co-operative societies to extend short-term credit for the seasonal requirements of individual farmers and for group purchases of supplies such as fertilizer. The societies will also provide medium-term credit for a variety of projects. The latter will encompass credit for redemption of mortgaged properties, purchase of new land and improvements to old holdings; mechanization of fishing operations and consolidation and extension to new areas of facilities for the processing and marketing of fish; extension of padi processing and marketing schemes and establishment of large and up-to-date co-operative

rice mills in suitable areas; and improvement and extension of schemes for the processing of rubber, copra, coffee and pineapple.

345. A sum of $4 million will be provided to the Credit Corporation, agricultural, livestock and fisheries marketing organizations and co-operative societies in Sabah. The Credit Corporation makes loans to smallholders for the purchase of equipment for processing rubber, coconut, oil palm, cocoa, abaca and other crops. Loans are also made to rubber smallholders to tide them over the period when their trees are immature.

346. An amount of $13.5 million will also be set aside for the Sarawak Development Finance Corporation, the Co-operative Central Bank and other co-operative organisations. These institutions will provide credit for crop production and marketing schemes, the purchase of low-cost rural houses and the maintenance of rubber and pepper gardens. Schemes will also be organized for the provision of credit to pig farmers, poultry-breeders and fishermen.

AGRICULTURAL MARKETING

347. To co-ordinate the activities of the various organizations, both public and private, which are involved in the marketing of rural produce, the Federal Agricultural Marketing Authority has been established and will commence operations during 1966. An allocation of $3 million has been made for this purpose. The Authority will collaborate with all concerned to promote efficient and effective marketing arrangements. It will initiate appropriate schemes for the efficient marketing of rural produce. Where necessary, these schemes may take the form of marketing boards for particular commodities. This, however, will only be done if other methods of bringing about marketing arrangements which adequately reward rural producers for their productive effort cannot be devised.

348. At present the marketing of the produce of the small farmer and fisherman is beset with a host of market imperfections which arise, *inter alia,* from his limited bargaining power, lack of market information, lack of grades and standards, middlemen monopsony, cartels and price-fixing. As a result, small farmers and fishermen are open to exploitation and generally obtain a return which is incommensurate with their productive efforts. It will be the object of FAMA to intervene in markets where such operations prevail to rationalise, discipline and build them up so that they will serve the general welfare better and stimulate productive expansion more effectively.

EMERGENCY CONTRACT PERSONNEL SERVICES

349. As has been stressed previously, the principal bottleneck to the implementation of all agricultural development programmes will be the lack

of qualified local personnel to undertake them. While major emphasis will be given to agricultural education and training to produce vast increases in the quantity and quality of local agricultural researchers, educationists and extension workers, the results of this effort will not begin to appear before the next decade. In the meantime, the initiation of this effort itself, as well as the implementation of the research and operational programmes of the government, will depend for their success on the necessary skills being obtained from outside the country. It is hoped that a substantial part of the country's needs will be met through external technical assistance arrangements. The government intends to obtain the remainder through contractual arrangements. For all these purposes, a sum of $5.0 million has been allocated.

VII.—ALLOCATIONS FOR AGRICULTURAL DEVELOPMENT

350. The allocation for agricultural development amounts to $1,086.6 million, as shown in Table 7-4.

TABLE 7-4

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE FOR AGRICULTURAL DEVELOPMENT, 1966-70

($ millions)

	Malaya	*Sabah*	*Sarawak*	*Malaysia*
Agriculture	166.5	11.7	89.3	267.5
Research	*17.0*	*4.5*	*1.7*	*23.2*
Education	*10.0**	*0.8*	*4.9*	*15.7*
Extension	*10.6*	*0.4*	*1.5*	*12.5*
Rubber replanting grants	*93.9*	*5.3*	*61.0*	*160.2*
Other crop subsidies	*35.0*	*0.7*	*20.2*	*55.9*
Animal Husbandry	28.0	2.1	3.7	33.8
Fisheries	17.0	1.3	4.0	22.3
Forestry	10.0	1.1	1.3	12.4
Drainage and Irrigation	319.2	7.0	6.5	332.7
Land Development	335.0	27.8	13.1	375.9
Rural Credit and Marketing	19.5	4.0	13.5	37.0
Emergency Contract Personnel Services ...	5.0	—	—	5.0
TOTAL ...	900.2	55.0	131.4	1,086.6

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* The allocations for the expansion of the present College of Agriculture, the establishment of a second agriculture college in Malaya and the expansion of the Faculty of Agriculture, University of Malaya appear in the allocations for the overall Education sector (Chapter XI).

351. External financial and technical assistance will be required for the implementation of the agricultural education and research programmes. With regard to the land development programme, it is hoped that assistance will be provided by the World Bank for the Jengka Triangle project. External technical and financial assistance will also be sought for other land development schemes to be commenced during the period 1966-70. In the field of drainage and irrigation projects, a loan has been approved by the World Bank for the Muda River project, while a request has been entered for the Kemubu project. In addition, assistance is being sought to help meet the plant and equipment requirements of the Federal and State Departments of Drainage and Irrigation.

CHAPTER VIII

Manufacturing, Construction and Mining

352. The importance of agriculture in national economic development is discussed in Chapter VII. An acceleration of agricultural activity alone, however, will not be sufficient to generate and maintain a high rate of income and employment growth.

353. As the agricultural resources of the country become more fully exploited, growth in secondary industry will have to be relied upon to produce progressive increases in income and employment for a growing population. If national income and employment are to rise over the next twenty years as envisaged in the Perspective Plan (Chapter III), considerable structural changes in the economy will have to occur, with industry accounting for an increasing share of the total. The promotion of accelerated development in manufacturing activity is therefore important. This is especially so, as it is expected that mining output will be stable at best in the long term, with the progressive exhaustion of known and easily accessible resources.

I.—THE STRUCTURE OF MANUFACTURING INDUSTRY

354. It is estimated that the contribution of the manufacturing sector to Malaysian gross domestic product at constant factor cost in 1965 is about 11% and that the sector provides employment for about 6% of the total employed labour force. On a regional basis, Malaya accounts for the largest share of manufacturing industry. Manufacturing activity in Sabah and Sarawak is as yet negligible.

355. The manufacturing sector can be classified into three categories. The first is the processing of agricultural products in factories off estates. Included in this category are rubber milling and latex processing, copra

processing, palm oil milling and tea factories. The second category is that of industries manufacturing consumer and intermediate goods with the use of local and imported raw materials. Included are food products, beverages, tobacco products, textiles, foot-wear, furniture and fixtures, paper and paper products, printing, publishing and allied activities, leather and leather products, rubber products, chemicals and chemical products, petroleum products and non-metallic mineral products industries. In many of these industries the techniques of production employed are relatively simple. These industries also account for the largest share of employment in the manufacturing sector. Overlapping this second group is a third category of industries, which produces capital goods as well as consumer and intermediate goods and generally employs more capital-intensive methods of production than the second group. In this category are basic metals, metal products, machinery and transport equipment industries.

356. In Malaya at present, about 21% of value-added by manufacturing activity originates from the first category, 68% from the second and 11% from the third. Manufacturing activity in the Borneo States is mainly in the first two categories.

357. The average size of manufacturing establishments in the country is quite small in terms of employment. The 1963 census of manufacturing industries in Malaya indicates that only 7 major groups of industries employ more than 5,000 full-time workers each. These are the food, wood, rubber, metal and non-metallic mineral products industries, the industries associated with the processing of estate-type agricultural products in factories off estates and the printing, publishing and allied service industries.

358. Taking the manufacturing sector as a whole, average full-time employment per manufacturing establishment is about 10 workers. Establishments employing under 10 full-time workers each account for about 82% of total manufacturing establishments. However, they contribute only about 14% of total net output in manufacturing. Conversely, industries employing more than 50 full-time workers per establishment account for only about 4% of the total number of establishments but contribute 60% of total net output in manufacturing. As for Sabah and Sarawak, available evidence indicates that almost all firms have less than 50 employees.

II.—PROGRESS IN THE MANUFACTURING SECTOR

359. The contribution of the manufacturing sector to gross domestic product at constant factor cost in Malaya rose from 8.7% in 1960 to 10.8% in 1965. In absolute terms, the value added by the sector rose from $453 million in 1960 to $766 million in 1965, a rate of growth of 11.0% per annum. However, value-added in current prices increased at an annual

rate of growth of 8.0% to $665 million in 1965. The difference results from the fact that the value of net output from the processing of estate-type agricultural products in factories off estates declined, primarily because of the falling price of rubber, the processing of which is still a large element in this group of industries. The fastest rates of growth were achieved by tobacco products, chemical products, machinery, metal products, non-metallic mineral products and basic metals industries, where the annual average rate of increase in net output was about 20%. The other major groups of industries, including food products, beverages, wood products, rubber products and transportation equipment industries, achieved moderate rates of growth.

360. Gross capital formation in the manufacturing sector increased steadily between 1960 and 1965. This indicates that the confidence of investors both in and outside Malaysia has not been affected by political uncertainties in the region. The major new projects which were implemented during the last five years include three cement factories, three condensed milk factories, two oil refineries, two factories making asbestos cement products, two breweries, two textile mills, a tyre factory, a cigarette factory, a sugar refinery, a synthetic detergents factory, a factory producing monosodium glutamate, a metal box factory, an acid factory and an aluminium rolling mill. Most of these will have sufficient capacity not only to satisfy domestic demand but to provide for an exportable surplus as well. In the Borneo States an expansion of investment appears to have taken place in wood-working, engineering assembly and repair, tyre retreading and in the manufacture of biscuits, soft drinks, cigarettes, matches, soap, rubber foot-wear, plastic goods and dairy products.

361. This steady advance in manufacturing development has been made possible by the maintenance of political and financial stability in the country. Industrial development in Malaya has also been facilitated by an adequate physical infrastructure of transport and communication facilities and of power and water supplies, as well as by the provision of tax relief to industries accorded pioneer status and the establishment of industrial estates. During 1961-65, 110 firms were granted pioneer industry certificates, 26 for the manufacture of chemicals and chemical products, 18 for foods and beverages, 15 for metal products other than machinery and transport equipment, five for textiles and the remainder for a large variety of other activities. The total called-up capital of these pioneer industry firms as of September, 1965 amounted to about $234 million, compared with $29 million at the end of 1960. Of the $234 million, approximately 61% represented investment from abroad. A total of 98 pioneer firms employing 10,730 workers were in production in September, 1965. When these firms

reach the end of their pioneer relief periods, they will provide a total of about 14,500 jobs.

362. The contribution of pioneer firms to net output and employment in the whole Malayan manufacturing sector is still quite small. The 1963 census of manufacturing industries indicates that pioneer firms accounted for only 9% of manufacturing establishments, 17% of net output and 8% of paid employees in the manufacturing sector. However, for pioneer firms the five-fold increase in the number of establishments between 1959 and 1963 and the rise in the value of net output by 18 times during the same period were much higher than the corresponding increases for the entire manufacturing sector. These results attest to the significant role which pioneer industry concessions have played in industrial progress.

363. In the field of industrial site development, Malaya's first industrial estate at Petaling Jaya in Selangor, covering about 730 acres, is now a thriving success. Virtually all sites are earmarked although not all are fully developed. Six additional estates were established in Malaya in the last five years: at Tampoi (143 acres) and Larkin (154 acres) in Johore Bahru, Tasek (370 acres) in Ipoh, Mak Mandin (320 acres) near Butterworth, Senawang (400 acres) near Seremban and Tupai (105 acres) in Taiping. Two more estates at Batu Tiga (695 acres) near Klang and Kamunting (600 acres) near Taiping are under construction. Apart from the Tupai estate, which will cater mainly for light industries, all other estates will cater for both heavy and light industries.

364. In addition to assistance provided by the government, financial institutions in the private sector have also played their part in stimulating manufacturing development. In Malaya, loans and advances by commercial banks for manufacturing concerns have increased from $53 million at the end of 1960 to $150 million at the end of 1964. There has also been a considerable expansion in the amount of credit extended by Malaysian Industrial Development Finance Limited (MIDFL). Its commitments at the end of the third quarter of 1965 were in the order of $44 million. Assistance was given to the development of both light and heavy industries, especially to enterprises contributing to import substitution and export expansion. The wide range of industries assisted includes those producing furniture, flour, pharmaceuticals, cosmetics, stationery, stout, plastic articles, tanned leather, electric lamp bulbs, domestic electric appliances, rubber products, veneer, plywood, coir, cement concrete blocks, window glass, asbestos, cement and building products and iron and steel. The provision of assistance for the manufacture of veneer, plywood and coir, is resulting not only in the development of export earning industries but is also generating additional value-added to raw materials which otherwise would

be shipped abroad in an unworked state. In the case of the assistance provided to a new cement plant, the additional production capacity created has brought overall capacity in the industry to a level sufficient to meet all foreseeable domestic demand. As a result of the encouragement given to the establishment of a plant for the manufacture of concrete blocks, a special kind of block hitherto not used in Malaysia will be produced. This will substantially reduce building and construction costs.

365. The magnitude of assistance given by MIDFL was made possible by its re-organisation in 1963, which paved the way for an increase in share capital from $17.5 million to $25.0 million, a loan of $24.5 million from the World Bank, an interest-free long-term loan of $37.5 million from the Federal Government and a strengthening of the management and staff organisation of the company.

III.—PROGRESS IN THE CONSTRUCTION SECTOR

366. In the field of building and construction, the increase of activity in Malaysia during the period 1961-65 was spectacular. This was brought about by rapid growth in capital expenditure on dwellings, office buildings, schools and other construction projects. The most rapid growth took place in the public sector, where capital expenditure trebled during the period.

367. The capacity of the Malayan construction industry was increased significantly during 1961-65. The industry increased its share of gross domestic product, in terms of 1960 constant prices, from 3% in 1960 to 5% in 1965. It was Malaya's fastest growing industry during that period, with an annual rate of growth of about 18%. This rapid growth was facilitated by a substantial expansion of loans and advances by commercial banks, which trebled between 1960 and 1964. A significant feature of the Malayan construction industry prior to 1960 was its low degree of mechanisation. However, during the 1961-65 period it was able to rapidly modernise and expand in response to the demand for construction activity generated by the public development programme and the upsurge of private investment, particularly non-residential construction.

IV.—PROGRESS IN THE MINING SECTOR

368. Output in the mining sector increased by about 20% between 1960 and 1965. The principal mineral commodity in value terms is Malayan tin, for which output increased from 52,000 tons in 1960 to about 62,000 tons in 1965. The 1965 level is about equal to that which prevailed before restrictions were imposed by the International Tin Council in 1958/59 in an attempt to contain the price decline which was taking place at that time. Next in importance is Malayan iron ore, the output of which expanded from 5.6

million tons in 1960 to 7.3 million tons in 1963 but then declined to an estimated 6.5 million tons in 1965. This decline was principally the result of the depletion of known commercial reserves. Other minerals of importance are bauxite and gold from Malaya and Sarawak and illminite from Malaya. During 1961-65 the output of bauxite and illminite increased, while gold production decreased. Recently, sizable deposits of high quality steam coal and fireclay have been discovered in Sarawak.

369. The total value of mineral output, almost all of which is exported, doubled between 1960 and 1965, primarily because of a sharp rise in the price of tin from an average of $6,622 per ton f.o.b. in 1960 to an estimated $11,760 per ton in 1965. This price increase has induced the opening up of a large number of new tin mines, particularly in 1965.

V.—PROSPECTS FOR THE MINING SECTOR

370. Present information indicates a declining contribution of mining output to the gross domestic product of the economy in the immediate future. It is expected that the net value of Malayan mining output will decline by 4.6% per annum over the period 1966-70 as compared with an increase of 15.0% per annum during 1961-65. In the next five years a substantial decline is likely to occur in the output of tin from dredging as known deposits are gradually exhausted. There will be some increase in production from the use of new equipment on low-grade ground and from the operations of gravel pump mines. Gravel pump mines use simpler equipment than the dredge mines and can be moved to new sites and set up quickly and easily. However it is not expected that such increases will compensate for the decline in production by the dredging section of the industry. With regard to the price prospects for this commodity, the conservative expectation is that there will be no significant deviation from the present favourable level. There is a world shortage of tin and, unless considerable progress is made in substituting other materials for tin in its various uses, prices are unlikely to fall during the period as a whole.

371. In view of the rapidly declining reserves of iron ore deposits in Malaya, the output of this mineral is expected to decline further. In addition, some decline in prices is expected, since substantial increases in the availability of high-grade ores in the world market are anticipated. As for the other mineral resources of the country, the known reserves of bauxite and gold in Malaya and Sarawak are also rapidly diminishing.

372. The overall picture for the mining sector, at least in the short run, is thus quite bleak. However, the situation could change as a result of the extensive prospecting which is now being undertaken. New prospecting for tin in Malay reservations and off-shore prospecting are being intensified. Iron

ore prospecting will also continue, especially in Pahang, where some surveys indicate the existence of additional large quantities of iron ore. Other investigations which are being intensified reveal that copper may be found in Sabah and oil in Malaysian territorial waters off Sabah and Sarawak. To facilitate some of this work, an allocation of $0.8 million has been made to the Federal Department of Geological Survey.

373. The results of prospecting which has been carried out by the Mineral Investigation Drilling Unit of the Federal Department of Mines indicate that the reserves of tin ore in Malay Reservations amount to about 1,000 million cubic yards. These reserves constitute about 15% of Malaya's total estimated reserves. To facilitate their exploitation and encourage Malay participation in the mining industry, material and technical assistance will be provided to Malay miners by the Department of Mines. Gravel pumps will be set up in selected areas by the Department and Malay miners will be trained to operate them. The equipment will be on loan to the miners and will be returned to the Department for use in other areas once the initial users have accumulated sufficient resources to acquire their own equipment. A sum of $0.5 million has been allocated in the Plan to enable the Department of Mines to purchase equipment for two gravel pump mines.

VI.—PROSPECTS FOR THE CONSTRUCTION SECTOR

374. The prospective situation for building and construction activity is more encouraging. Public sector construction activities in Malaya will continue at a high level but, in view of the sizable advances which have already been made in most areas of public construction, the rate of growth will be lower than that during the period 1961-65. In the private sector, construction activity is expected to continue at a high and rising level. The overall average annual growth rate of construction activity in Malaya is likely to be about 8% during the next five years.

375. In the Borneo States the construction industry should expand rapidly in response to the high level of public development expenditure, particularly in projects aimed at building up the infrastructure. But the industry will have to expand its capacity rapidly if it is to satisfy all demands. The boom in the construction industry in Sabah has been one of the factors contributing to inflation in the State. Government will therefore encourage the expansion of the industry in the Borneo States during the Plan period.

VII.—PROSPECTS FOR THE MANUFACTURING SECTOR

376. The prospects for rapid economic expansion are best in the field of manufacturing activity. At the present stage of development in the economy, the immediate opportunities are principally in the domestic production of those consumer goods which are presently imported. The

magnitude of these possibilities may be seen from the estimate that only about 40% of total Malayan domestic demand for manufactured consumer goods of roughly $2,000 million is presently met from local production, while 60% is imported. Looking beyond the immediate future, additional opportunities for industrial development will arise as increases in population and *per capita* income enlarge the size of the domestic market. These opportunities should improve further as export markets are developed. As progressive expansion takes place in the consumer goods industries, opportunities will also arise for the establishment and expansion of intermediate and producer goods industries supplying materials required by these consumer goods industries. Opportunities which arise during the Plan period will be located mainly in Malaya. In the Borneo States only a small degree of manufacturing development is anticipated in the next five years. However, public investment in the infrastructure of the economy and in the agricultural sector will serve to prepare these States for viable industrial development in the future.

377. In the light of the favourable prospects for expansion of manufacturing, the First Malaysia Plan incorporates a target rate of increase in manufacturing output of 10% per annum. To attain this target, it is expected that each of the following major groups of industries will generate annual output increases of the order of 10% or more: food and beverages, wood products, rubber products, chemicals and chemical products, basic metals and machinery manufacturing industries. Some of the major projects that will come to fruition during 1966-70 include sugar refineries, textile mills, motor vehicle assembly plants, flour mills, a chemical complex, an iron and steel mill, a jute mill and a pulp and paper plant. In addition, one of the oil refineries in Port Dickson in Negri Sembilan will construct a petro-chemical plant to supply some of the feedstock requirements of the chemical complex mentioned above.

378. The attainment of the above output targets is imperative if the national income and employment growth objectives of the Plan are to be reached and if a significant degree of import substitution is to be effected. It is also necessary that the target growth rates for the next five years be sustained in the long term if the objectives of the Perspective Plan are to be achieved.

VIII.—INDUSTRIAL DEVELOPMENT POLICY

379. The government will continue to leave the operational role in the industrial sector largely in the hands of private enterprise. The government will offer co-ordinated and purposeful assistance to private industrialists but attainment of the objectives for industrial development will depend substantially upon the response of local and foreign entrepreneurs to the

incentives and assistance offered. If the targets are to be achieved, Malaysian businessmen will have to respond more vigorously than ever before to the opportunities existing in the industrial field. It will also be necessary to have an increased flow of foreign private capital and entrepreneurship into manufacturing industry, preferably in joint participation with domestic capital and enterprise.

380. Foreign entrepreneurs will be accorded the same incentives as local industrialists and, in addition, will continue to be given guarantees regarding the security of foreign investment. Investment guarantee agreements have been signed with the United States and West Germany and the government is willing to enter into similar agreements with other countries. An additional measure of protection to foreign investment is accorded by Malaysia's accession to the World Bank-sponsored Convention of International Investment Disputes, which permits foreign industrialists to resort to an International Arbitration and Conciliation Centre to settle disputes, should any claims against the Malaysian Government arise. Moreover, there will continue to be unrestricted repatriation of capital and remittance of profits and dividends within the Sterling Area. As in the past only nominal control will be imposed on capital movements and profit remittances to countries outside the Sterling Area. Agreement has been reached for relief from double taxation with the United Kingdom, Japan, Denmark, Norway and Sweden. The government is anxious to enter into similar agreements with other countries.

381. The involvement of foreign private entrepreneurship and capital in Malaysia's industrial development will be welcomed not only for its contribution to the growth of national income and employment but also for the part that it will play in helping to modernize industrial technology. In regard to the latter, the government is anxious to ensure that techniques of production are evolved which fit the circumstances of the economy by maximising the use of the country's abundant labour resources and economising on scarce capital. To this end, the government will encourage the use of labour-intensive methods of production wherever these are technically possible and economically justified.

382. In undertaking its role of promoting and facilitating the growth of manufacturing industry in Malaysia, the government will continue:

(i) to gear its financial and monetary policies to the objective of maintaining a sound and stable financial and monetary climate free from restrictions, controls and uncertainties;

(ii) to implement policies which will encourage and facilitate the accumulation of private savings for industrial development and other investment in the private sector;

(iii) to implement policies which will ensure that incentives for private industrial investment are as favourable as possible, consistent with the national interest;

(iv) to promote the development of the infrastructure of the economy so that adequate power, water, transport and communication facilities will be available;

(v) to ensure that the development of the educational system will be geared to generate the necessary quantity and quality of manpower required to establish and operate modern industry; and

(vi) to encourage broadly-based participation in industrial development by providing facilities and opportunities for the indigenous people, who have too little capital and know-how, to participate effectively in industrial development.

383. The first, second, fourth and fifth of the above areas of action are dealt with in other chapters. This chapter will concern itself only with the third, sixth and partially with the fifth areas of action.

384. The government is already in the process of implementing a number of specific promotional measures. Some protective tariffs have been introduced; income tax relief is being provided to pioneer industries; exemption from import duties is being granted on the raw material imports of industrial ventures; and industrial estates are being established in the main population centres of the country. It is clear, however, that much more needs to be done if the targets for industrial development are to be achieved and it is towards this end that the industrial promotion policies and programmes of the government will be directed.

PROTECTIVE TARIFFS

385. In recognition of the problems of infant industries and those which arise from the limited industrial experience of the country, major attention will be given to the imposition of protective tariffs and the establishment of common tariff arrangements for the whole of Malaysia. Some progress has already been made by the government on the advice of the Malaysian Tariff Advisory Board, which was established in 1963, with the declaration of protective tariffs on 214 items. With the experience that has been gained by the Board in the specific problems confronting industry, action can and will be speeded up to ensure that significant advances are made in the next five years. The government, however, is intent on ensuring that no more protection than is necessary will be accorded, for the cost of industrialisation to the domestic consumer must be minimised. The government is also intent that tariff protection will not be afforded for periods longer than are absolutely necessary. The growth of the industrial sector in

the long run will demand that eventually production be extended to supply not only the domestic market but also markets overseas. This makes it essential that domestic enterprise be constantly prodded to increase efficiency so that there will be progressive reductions in production costs.

TAX INCENTIVES

386. The experience of Malaysia as well as that of other countries in similar conditions suggests that the provision of tax incentives will also encourage a significantly faster rate of capital formation in the manufacturing sector than might otherwise be expected. It will therefore continue to be the policy of the government to use this instrument to facilitate industrial development. The government will determine the appropriate combination of tax incentives and tariff protection to be used in each case depending on the particular problems which confront the enterprise.

387. To ensure that fiscal incentives contribute positively to sound industrial development, the government is considering whether any modifications to present tax concessions are needed. Concessions currently granted include income tax relief for pioneer industries and initial income tax allowances for capital investment by all business enterprises. If warranted, changes will be instituted to achieve a higher rate of investment in those manufacturing activities which will maximise returns to the economy. Specific measures may also be taken to encourage private resources to flow from less desirable activities into the dynamic areas of the manufacturing sector.

INDUSTRIAL CREDIT

388. The major source of medium and long-term credit for industrial development will continue to be MIDFL. The remaining share of its capital which is due from the Federal Government, amounting to $1.0 million, and the balance of $15.0 million of the Government loan of $37.5 million will be paid to the company during the coming five-year period.

389. The World Bank has agreed to consider requests from MIDFL for loans amounting to three times the sum of the share capital of the Company ($25 million) and the Government loan ($37.5 million). This will provide a potential source of loan funds from the World Bank amounting to $187.5 million. The aggregate potential resources of the Company are therefore $250 million, of which $44 million has already been committed.

390. MIDFL is thus well placed to serve the medium and long-term credit needs of industrialists who require assistance for investment in Malaysia. In addition to enlarging its capacity for the extension of credit, MIDFL will expand and strengthen its ability to provide technical and management

assistance to its clients as well as to underwrite capital issues and organise turn-key projects.

391. In addition to projects undertaken by MIDFL in the Borneo States, the Borneo Development Corporation Limited will continue to serve the needs of industrialists in these States. The Corporation will do this by developing industrial sites and providing factory mortgage. To assist in these operations, the State Governments of Sabah and Sarawak will together contribute $4.2 million in additional capital for the Corporation.

392. It is hoped that commercial banks also will play a larger role in the provision of short-term credit for working capital. Although the amount of credit made available to industrial enterprises is rapidly increasing, it is still small relative to the needs of industrialists. It is therefore essential that commercial banks should make every attempt to increase their loans and advances to industrial enterprises.

SMALL-SCALE INDUSTRIES

393. In recognition of the particular difficulties confronting small industries in securing adequate financial resources, special attention will continue to be given to their needs by the government. Majlis Amanah Ra'ayat (MARA) and Bank Bumiputra will deal with the problems of indigenous entrepreneurs. In addition, there is the rural co-operative movement, which will continue to assist its members both financially and technically in the establishment and operation of industries for the processing of agricultural products. MIDFL also will increase its activities for small entrepreneurs. It will continue to accept requests for loans as small as $50,000; provide hire purchase finance for the acquisition of industrial machinery and equipment and factory mortgage finance for factory development projects; and initiate and participate in tripartite credit and guarantee arrangements with local agencies. In addition, Malayan Industrial Estates Limited (MIEL), a subsidiary of MIDFL which was established solely for small industries, will intensify its activities in building factories for sale on credit terms to industrialists. Factory buildings of different sizes will be constructed, in advance of demand if need be, so that a potential manufacturer will have a choice among several alternative buildings.

INDUSTRIAL SITE DEVELOPMENT

394. To supplement the provision of fiscal and other incentives for industrial development, the programme for industrial site development will be expanded during the next five years. An allocation of $14.0 million has been earmarked in the Plan for this purpose. Under this programme,

development sites with access to basic utilities such as roads, water and power will be made available. The construction of the factories themselves will be left to industrialists. However, as was indicated above, facilities exist within MIEL to help small industries to acquire needed buildings and other facilities for their operations.

INDUSTRIAL TRAINING

395. The various technical and apprenticeship training programmes in the country will continue to be expanded to provide a wide range of trained personnel for industrial organisations. Action is already underway to expand the activities of the Central Apprenticeship Board and the Industrial Training Institute so as to produce greater numbers of trained technicians and supervisory personnel to complement those trained by private organisations through their own training schemes. The allocation for this purpose is discussed in detail in Chapter XI. The National Productivity Centre, which was established with U.N. Special Fund assistance in 1961, will intensify its work of training supervisory and managerial personnel at all levels of Malaysian industry. The objects of this training will be to make industrial operations more efficient, to improve the quality of output, to lower costs and to develop better labour-management relations. During the next five years work will also be initiated in providing consultancy services and training in upgrading marketing and sales practices. The provision for the Centre in the Plan is $0.2 million.

INDUSTRIAL RESEARCH

396. As for the other sectors of the economy, soundly-based research activity will be of the utmost importance for progressive industrial development. Recognising, however, that only the largest enterprises will be able to undertake this function, the government will establish under the First Malaysia Plan a National Institute of Scientific and Industrial Research, for which $5.0 million has been included in the Plan. The Institute will seek not only to provide all industrial enterprises with the necessary scientific and technical support but also to study the possibilities for and the problems associated with the industrial processing of materials available from local sources.

397. The government will also set up an autonomous Malaysian Standards Institute, for which an allocation of $0.1 million has been made in the Plan. Initially the Institute will concentrate on industrial standards to ensure that the specifications of domestically produced and

imported manufactured articles meet the particular requirements of the domestic market and, in the case of Malaysia's exports, the requirements of overseas markets. In this way, imports of reliable quality at lowest cost will be possible; local industrial establishments will be able to manufacture goods which will satisfy domestic requirements and compete with imports; and domestic enterprises will be able to manufacture products which will find acceptance in international markets.

LEADERSHIP IN PROMOTION AND CO-ORDINATION: FIDA

398. While the promotional measures discussed above will be the specific responsibilities of a number of agencies, their effectiveness will necessitate not only that they be dynamically implemented but also that they be geared to the attainment of common objectives. To ensure the existence of the necessary impetus for such purposeful, positive and co-ordinated promotional action, legislation was passed in 1964 for the establishment of the Federal Industrial Development Authority (FIDA), for which an allocation of $5.0 million has been made in the Plan. Action is currently being taken to secure an international expert as the executive head of the Authority. It is hoped that the Authority will begin functioning before the end of 1966.

399. In addition to ensuring co-ordination of the activities of all organizations concerned with industrial promotion, FIDA will supplement the activities of these organizations by preparing for the use of potential investors feasibility studies which will be designed to determine whether a prima facie case exists for local production. On the basis of its feasibility studies and the work of the National Institute of Scientific and Industrial Research, the Authority will arrange for the promotion of promising industrial projects through intensive domestic and foreign publicity, either on its own or in conjuction with other agencies concerned. The Authority will also advise the government on the administration of all industrial incentive programmes and industrial site development. With regard to the latter it will undertake the development of such sites in appropriate cases.

400. To encourage the exploitation of promising industrial possibilities as early as possible, a well-known international firm of industrial and management consultants was commissioned in 1965 to prepare a number of specific industrial feasibility studies. These include studies on the feasibility of investment in dairy products, animal feed, tapioca starch, leather tanning and forest products industries. The reports on these potential projects will be published in the early part of 1966 and will incorporate information on raw materials, labour availability, production costs, market possibilities, investment requirements and related matters that will be of use to interested entrepreneurs.

IX.—PARTICIPATION OF THE BUMIPUTRA IN INDUSTRIAL DEVELOPMENT

401. In view of the relative lack of capital and industrial know-how among the lower income groups, which comprise in the main the Bumiputra, their participation in industrialisation will require that they be provided with the necessary facilities and opportunities to do so.

402. Towards this end, MARA is being provided in the First Malaysia Plan with a substantial allocation of funds, amounting to $70 million, to enable it to assist the Bumiputra to play their part in industrial development. The principal activities of MARA will comprise education and training, provision of technical and financial assistance, establishment of new industrial enterprises and management of these enterprises in the initial stages, with a view to the ultimate transfer of their ownership to the Bumiputra themselves.

403. The training programme that will be undertaken will be an extensive one. It will be designed to provide training opportunities for existing entrepreneurs, young people desiring to prepare themselves for careers in commerce and industry and the staff of MARA itself. For these purposes, scholarships will be provided at Malaysian and overseas centres, while the MARA College of Business Studies will be expanded to treble the output of trained personnel.

404. The technical assistance programme of the Authority will cover the provision of advisory services to the Bumiputra with regard to management, marketing, engineering, production, accounting and other fields as needed. Where necessary, such assistance will also be supplemented by the extension of credit.

405. In its more direct role in industrial and commercial development, MARA will participate in direct and joint ventures with local and overseas concerns with a view to ultimately transferring such enterprises, or MARA's share in them, to the Bumiputra. Possible projects include production of white cotton cambric and printing of batek, manufacture of rattan furniture and wrought iron products, tanning of hides and skins, sawmilling and related industries. MARA also will continue with its work of purchasing raw materials and finished products in bulk for sale to producers whenever such bulk purchases lower costs and assure regular supplies. Such activities are already being undertaken in the import of white cotton cambric for sale to batek makers, the purchase of spent cartridges and shells from the Ministry of Defence for sale as scrap brass to brassware makers and the purchase of silk and metallic yarns for sale to songket weavers. In addition, MARA will supplement the functions of the National Investment Company by buying shares reserved for the Bumiputra in pioneer and other companies and holding them until they can be sold to the Bumiputra.

406. The range of services and facilities that will be provided by MARA are wide and should go a long way towards assisting the Bumiputra to participate effectively in the industrial and commercial development of the country. In the final analysis, however, such an achievement will depend not so much on the number and amount of loans which MARA provides, the magnitude and range of technical assistance it gives, the number of people it trains or the number of industrial projects it initiates, but very much more on the response of the Bumiputra in availing themselves of these facilities and services and in putting them to good and proper use.

X.—ALLOCATIONS FOR PUBLIC SECTOR DEVELOPMENT EXPENDITURE

407. Public sector development expenditure for mining and industrial activities amounts to $115.8 million, as shown in Table 8-1.

TABLE 8-1

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE FOR MINING AND INDUSTRIAL DEVELOPMENT, 1966-70

($ millions)

Geological Survey Department	0.8
Mines Department	0.5
Malaysian Industrial Development Finance Ltd.	16.0
Industrial Estates	14.0
National Institute of Scientific and Industrial Research	5.0
Standards Institute	0.1
National Productivity Centre	0.2
Federal Industrial Development Authority	5.0
Majlis Amanah Ra'ayat	70.0
Borneo Development Corporation Ltd.	4.2
TOTAL ...	115.8

408. External financial assistance will continue to be provided by the World Bank for MIDFL. In addition, technical and financial assistance will be sought from foreign governments and international institutions for all the above projects and in particular for the activities of FIDA, MARA and the industrial research establishments.

CHAPTER IX

Transport and Communications

I.—INTRODUCTION

409. This chapter covers transport and communications, with special emphasis on those media in which the government has an important role to play. It deals with road, rail, water and air transport and telecommunication, postal, information and broadcasting (radio and television) services.

410. There has been much progress in the development of transport and communication facilities and services in both Malaya and the Borneo States over the past five years. But while in Malaya the basic transport and communication systems are for the most part now well established, they are only partially developed in Sabah and Sarawak. Under the First Malaysia Plan the emphasis in Malaya will be on projects that will enable transport and communications to meet the anticipated demand for services from other sectors of the economy and to raise service standards where this is considered desirable from the standpoint of economic growth. In the Borneo States the emphasis will be on extending basic systems, particularly for roads and telecommunications. Substantial improvements and extension to the transport and communication systems in Sabah and Sarawak form an essential part of the long-term effort to exploit the considerable economic potential of these States. Air services and telecommunications between Malaya and the Borneo States will be improved. Compared with the last five years public development expenditure in Malaya will be notably lower, while there will be a considerable increase in the Borneo States.

411. The success of the transport development programme depends upon how well it serves the requirements of the various sectors of the economy. Since a large portion of development expenditure relates to facilities which have a long life, the programme must be designed to meet the requirements of national development over the long term. Furthermore,

the various transport media must be developed so that each will play its full part in meeting both short and long-term requirements as economically as possible.

412. To assure the development of a co-ordinated transport system that will serve national objectives over the long term, a number of steps will be taken. Two surveys for the purpose of formulating long-term programmes for the development of transport will be undertaken. The first will deal with general economic and related transport development in Malaya; special consideration will be given to the co-ordination of road and rail development. The second will deal with resources and transport development in the Borneo States; the co-ordination of highways, inland water and coastal transport will receive careful consideration. The results of these surveys will serve as a basis for more effective transport development planning in the future.

TABLE 9-1

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE FOR TRANSPORT AND COMMUNICATIONS, 1961-70

($ millions)

	1961-65 (estimate)	*1966-70 (target)*	*% change*
Total	877	751	−14
Functional components			
Transport	747	546	−27
Communications	130	205	+58
Regional components			
Malaya	702	522	−26
Borneo States	175	229	+31

413. Total public development expenditure for transport and communications will amount to $751 million over the 1966-70 period, which is 14% less than the expenditure for the preceding five years. The allocations for 1966-70, as compared with the preceding five years, are summarised by principal function and territory in Table 9-1. There will be substantial reductions in expenditure for road, rail and air transport in Malaya as these facilities are already relatively well developed. Notable expenditure increases will be made for ports in Sarawak and telecommunication services in both the Borneo States. Expenditures are shown in greater detail in Table 9-6.

414. Under the functional headings that follow, progress up to the present will be discussed, the specific objectives relating to the sector will be stated and the various development programmes and policies required to attain these objectives will be outlined.

II.—ROADS

415. At the end of 1965 the length of Malaya's road network (excluding urban roads) exceeds 9,200 miles. Over the past five years 2,300 miles of roads were constructed, as compared with about 600 miles during the 1956-60 period. One of the main objectives of the road programme over the past five years was to link rural communities to the road network. The road programme thus complemented the rural development programme and helped bring more prosperous conditions to the communities concerned. At present there are about 6,400 miles of rural and secondary roads under state jurisdiction and 2,800 miles of federal trunk roads. Well over 80% of all Malaya's roads have a bituminous surface.

416. The rapid expansion of the road network has been accompanied by a substantial increase in motor vehicle registrations. At the end of 1965 there are about 400,000 motor vehicles in Malaya, including over 160,000 passenger cars, 3,700 buses, 42,000 lorries and 175,000 motor cycles. Over the last five years motor cycles and other motor vehicles increased at annual rates of about 30% and 10% respectively. As an indication of the increasing mechanization, there are now only 20 persons per vehicle in Malaya, whereas in most other Asian countries the number of persons per vehicle is much higher.

TABLE 9-2

MALAYA: ROAD DEVELOPMENT EXPENDITURE, 1961-70

($ millions)

	1961-65 (estimate)	*1966-70 (target)*
Federal roads		
Improvements to existing roads*	104	64
New communication roads	15	48
New development roads†	20	45
Other roads		
State and rural roads	204	63
Municipal roads*	7	23
Road and traffic surveys	1	1
P.W.D. plant and equipment	64	10
All other expenditure	2	1
TOTAL	417	255

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* Improvements to roads within the Federal Capital area are provided for under municipal roads.

† Roads in this category have been or will be designated as federal or state roads.

417. The road development programme for Malaya under the First Malaysia Plan will serve a number of objectives. Communication roads will be extended so that important population centres in the northeast and in the central west coast areas will have more direct access to important commercial centres. Development roads will be constructed as required for FLDA and other land development programmes to give access to areas with agricultural potential. Existing trunk roads will be improved where this is warranted by traffic congestion. Rural road extension will continue for the purpose of meeting urgent requirements. Urban road development will be accelerated, particularly in Kuala Lumpur, in order to cope with the rapid growth in traffic. The road development expenditures for the 1961-65 and 1966-70 plan periods are summarised in Table 9-2.

418. About 25% of road development expenditure is for the improvement of existing federal roads, particularly Routes I, II and III. These improvements include by-passes and throughways adjacent to the Federal Capital area and an alternative route with a more suitable alignment for Route II between Kuala Lumpur and Karak. The bulk of expenditure, however, will be for numerous small projects involving road realignment, widening and strengthening. All these projects are intended to bring the more heavily used sectors of the federal road system up to certain minimum standards relative to anticipated future traffic volume. These improvements will help prevent maintenance costs from becoming unduly high and will reduce accident rates.

419. The biggest single new road construction project will be the Northern East-West Highway connecting Kota Bahru and Butterworth via Grik. It will give northern Kelantan, which is the most densely populated area on the East Coast, more direct access to the major market and industrial areas of Penang and Perak and to the deep-water port at Butterworth. About three-quarters of a million people live in Kota Bahru and the northern Kelantan area. The nearest major market by road at present is Kuala Lumpur, 400 miles away. When the highway is completed, the nearest major market areas will be Penang/Butterworth and Ipoh, each of which will be about 200 miles from Kota Bahru. The highway will therefore result in substantial savings in transport costs. It will also help stimulate economic growth in both northeast and northwest Malaya and help assure the success of other economic development programmes in these areas. Roads already exist between Kota Bahru and Batu Melintang, Butterworth and Grik and Ipoh and Grik. This leaves a gap of about 60 miles between Grik and Batu Melintang. During the next five years engineering surveys will be undertaken and some of the improvements to the existing roads that make up the route will be carried out. About $32 million will be spent on this $73 million

project during 1966-70. The project will be completed during the Second Malaysia Plan period.

420. The allocation of $45 million for the construction of new development roads will meet the requirements for road access to development projects in the First Malaysia Plan. These include FLDA, irrigation and privately sponsored land development projects as well as industrial projects.

421. A sum of $63 million has been allocated for rural road development during the 1966-70 period. The bulk of this expenditure will be for new rural roads linking the more important villages that are not yet connected to the road network. The allocation to each state is based on the rural population of the state, land alienated for agriculture, total land area, the number of motor vehicles and the mileage of existing rural roads.

422. Road development expenditure for the Federal Capital of Kuala Lumpur will amount to $19 million. This includes $11 million for Route I and II by-passes and throughways within the Federal Capital area. The priority for the projects involved will follow closely the recommendations arising out of the municipal transport survey completed in 1963. Expenditure for road development in the municipalities of Penang, Ipoh and Malacca will amount to nearly $4 million.

423. A Highway Planning Unit will be established in the Malayan Public Works Department. The Unit's prime responsibilities will be to plan for co-ordinated road maintenance and improvement and to assure that these activities are conducted economically. The Unit's tasks will be to initiate and supervise the compilation of the detailed road inventory which is required for attaining its planning objective, to undertake the necessary traffic surveys and to recommend standards for the various segments of roads and to formulate the plans for attaining and maintaining these standards. A sum of $1.4 million has been allocated for the Highway Planning Unit.

424. To improve the inspection and registration facilities of the Road Transport Department a sum of $1.0 million has been provided in the Plan.

425. In view of the rapid expansion in motor vehicle registrations and traffic on the one hand and the need for additional government revenue on the other, the possibility of increasing revenues from motor vehicle licensing, truck and bus route franchises and fuel taxes will be investigated. The possibility of obtaining additional revenues from toll road arrangements will also be considered.

426. Lorry, bus and taxi transport all come within the private sector. In keeping with the present policy regarding the use of goods vehicles, any trader or businessman who has an established business with a genuine need to warrant the economic use of a motor vehicle for the carriage of his own

goods can obtain the necessary licence. The number of goods vehicles in this category has increased substantially. However, the increase in the number of goods vehicles providing common carrier services to the general public has been negligible because of the need for applicants to satisfy the Road Transport Licensing Board that existing facilities in the area to be serviced are inadequate or unsuitable. In respect of taxi cabs and hire cars, the number to be authorised in any locality in Malaya is subject to review periodically. There has been fairly rapid growth in the bus and the taxi industries. The government through MARA has done much to stimulate the growth of the bus industry, particularly in the rural areas.

427. In Sarawak there are now 657 miles of road outside municipal areas. About half of this mileage consists of trunk roads but the greater part has only a gravel surface. Nearly two-thirds of the total mileage were constructed since 1960. Meanwhile, the number of motor vehicles is expanding rapidly and is now in excess of 17,000. Excluding motorcycles, motor vehicles number about 10,000 and have been increasing at the rate of more than 15% per annum.

428. The objectives of the road development programme in Sarawak under the First Malaysia Plan are threefold. Trunk roads will be extended, consistent with both development requirements and the co-ordination of road, inland water and coastal transport. Feeder roads will be extended to meet the requirements of agricultural development and land settlement. Roads will be given a bituminous surface wherever traffic is sufficiently great to give economic justification to the improvement. Road development expenditure for 1966-70 is summarised in Table 9-3.

TABLE 9-3

SARAWAK: ROAD DEVELOPMENT EXPENDITURE, 1966-70

($ millions)

New road construction:	
Trunk roads	35
Feeder roads	26
Major road improvements, including bituminous surfacing	12
Road surveys	2
P.W.D. plant and equipment	5
TOTAL ...	80

429. By the end of 1970 the road network will have been extended by about 435 miles. There will be a trunk road paralleling the coast of Sarawak, with the exception of a 100-mile gap in the Sibu-Bintulu sector and another

gap in the Fourth and Fifth Divisions. The programme will complete the trunk roads from Kuching to Sibu, Kuching to Lundu and Miri to Bintulu. A portion of the trunk road will be given a bituminous surface.

430. In Sabah there are about 1,400 miles of road, including urban roads. Most of the non-urban roads have either a gravel or earth surface only and some of them are less than 12 ft wide. Over the past five years the number of motor vehicles has been expanding rapidly and there are now about 7,000 motor cycles and 12,000 other motor vehicles.

431. The objectives for further road development over the next five years are similar to those in Sarawak. Expenditure totals $54 million and is distributed as shown in Table 9-4. This development programme will upgrade the road connections to the principal towns along the west coast. It will also connect Jesselton with Ranau via Tambunan. The programme includes provision for road development in the Sandakan, Lahad Datu and Tawau areas.

TABLE 9-4

SABAH: ROAD DEVELOPMENT EXPENDITURE, 1966-70

($ millions)

Trunk roads	26
Feeder roads	16
Urban roads	5
Road surveys	2
P.W.D. plant and equipment	5
TOTAL	54

III.—RAILWAYS

432. The principal role of the railways is to provide rapid, regular and relatively cheap freight services between the major industrial and market centres, where distances are sufficiently great. In order to fulfil this role, the volume of traffic the railway handles between these centres must be substantial. It is also necessary that the plant and equipment the railway uses is suitable for low unit transport cost operations and that operating and managerial techniques and railway organisation are oriented towards this end.

433. Over the past five years the Malayan Railway has not been sharing in Malaya's economic growth to any large extent. Freight traffic has shown no increase during most of this period, although there has been some improvement recently. Passenger traffic has declined. Railway operating expenditures have exceeded revenues over the past three years.

434. During the early part of the 1966-70 period the railway will be reorganised as a public enterprise. This will provide railway management with the authority as well as the responsibility to manage its day-to-day affairs as a commercial enterprise. More effective managerial and operating techniques will continue to be introduced. These changes, together with improvements to plant and equipment and development of a co-ordinated system, will help the railway compete more effectively with road transport. Development expenditure over the next five years will total $20 million. Completion of the Prai/Butterworth extension will cost over $5 million. Continuation of the dieselization programme and purchases of additional rolling stock to meet the requirements of the timber and other industries will cost nearly $8 million. Improvements to the right-of-way and signalling will amount to $4 million. The remainder of the allocation is intended for other projects such as commercial sidings, yards and stations.

435. The survey of long-term transport development needs in Malaya will give special attention to rail transport. The study will indicate the volume and type of traffic that the railway should be carrying between major centres. On the basis of this study, a long-term railway development programme will be formulated.

436. The long-term prospects for Sabah's 96-mile railway do not appear bright, since this railway is a relatively small-scale operation and a highway paralleling most of its route has been recently completed. Nevertheless, it is expected to play a useful role for some years to come and $1.3 million will be spent on new rolling stock and other improvements so that it will continue to meet user requirements.

IV.—PORTS AND MARINE SERVICES

437. Traffic through Malayan ports has doubled over the past five years. This growth is almost entirely attributable to international trade, especially trade in iron ore and petroleum products. Excluding these two commodities, however, international trade has been confined mainly to Port Swettenham and Penang. At these ports over the past five years the annual growth rate (excluding iron ore and petroleum products) was about 5%. For the next five years the annual growth rate will rise to 7% or 8%. The higher growth rate will be primarily due to the export of rubber, timber and palm oil and to the import of raw and semi-finished materials and capital goods needed for Malaysia's expanding industries.

438. Adequate port capacity and the development of related services are essential prerequisites to export expansion and economic growth. With the object of promoting orderly development and utilisation of domestic port capacity and related services, public development expenditure for port and marine services over the next five years in Malaya will amount to $81

million. In addition, government policies relating to port charges, transport services and rates, as well as storage, handling and processing facilities will be directed towards attaining this objective.

439. Under the First Malaysia Plan the major portion of development expenditure for ports and marine services in Malaya will be used for the continuation of the Penang/Butterworth port expansion programme. Three new berths will be completed in 1968 and another three in 1971. Total cost of the project during 1966-70 will be $48 million. At Port Swettenham a sum of $4 million will be spent for the reconstruction of two berths at the old section of the port and $23 million will be spent on land reclamation and the construction of two additional berths in the North Klang Straits. The Marine Department will spend over $6 million, mainly at minor ports on dredging and other improvements that will enable operations at these ports to proceed satisfactorily.

440. At the ports of Kuching, Sibu, Jesselton and Sandakan the volume of traffic has been expanding at the rate of between 8% and 10% per annum. Both exports and imports have contributed to this growth. Congestion is now apparent at Kuching, Sibu and Sandakan and if present trends continue it will soon develop at Jesselton. To meet requirements over the next five years, wharf capacity will be added to Kuching and Sibu at a cost of $21 million. At Sandakan lighterage capacity will be increased, pending the construction of a new wharf which is currently scheduled to begin in 1970. At Sibu, Jesselton and Sandakan administrative changes will be introduced to increase the efficiency of port operation. While these measures should enable these ports to handle anticipated traffic over the next five years, traffic prospects and port capacity, particularly at the Sabah ports, will be subject to further detailed study.

441. Other improvements to ports and marine services will cost $5.0 million in Sabah and $4.6 million in Sarawak. The possibility of developing Tanjong Baram in Sarawak for the export of palm oil is now under study. Improvements in administration for some of the minor ports and new regulations governing river and coastal traffic will be introduced.

V.—CIVIL AVIATION

442. Over the past five years the number of persons embarking and disembarking at Malaysian airports has been increasing at the rate of nearly 20% per year and this rapid rate of growth is expected to continue. This rate of expansion is about the same in Malaya, Sabah and Sarawak. Malaysian Airways and Borneo Airways (now incorporated with Malaysian Airways) have expanded their traffic in terms of passenger miles at an even more rapid rate.

443. With the completion of the new Kuala Lumpur International Airport, civil aviation expenditure in Malaya will drop sharply to $9 million for the next five years. The bulk of this expenditure will be accounted for by additional electronic equipment for Kuala Lumpur and testing equipment for the Department of Civil Aviation. Improvements will be made at the Penang and Kuala Trengganu airports.

444. In the Borneo States it is expected that F27 aircraft services between the cities of Kuching, Sibu, Bintulu, Miri, Jesselton, Sandakan, Lahad Datu and Tawau will be extended. Prior to the inauguration of this service, new or longer runways will be completed at Bintulu, Miri and Lahad Datu. To prevent erosion of the existing runway at Jesselton and preliminary to its further expansion at a later date, the Patagas river will be diverted; expansion to the airport at Jesselton will become necessary when heavier aircraft for long-distance services are introduced by Malaysian Airways. The allocations for Sabah and Sarawak are $6.0 million and $6.5 million respectively.

445. To accommodate anticipated increases in both domestic and international services, as well as to replace aircraft that will have to be taken out of service, Malaysian Airways may spend as much as $125 million over the next five years. Malaysian Airways will continue to expand its services between Malaya and the Borneo States. There are now daily direct flights between Kuala Lumpur, Kuching and Jesselton. Internal services in both Malaya and the Borneo States will continue to increase.

VI.—TELECOMMUNICATION SERVICES

446. Telephone installations have been increasing at an annual rate of 10% in Malaya and at a much higher rate in Sarawak and Sabah. Details are given in Table 9-5.

TABLE 9-5

MALAYSIA: NUMBER OF TELEPHONES INSTALLED, 1960 AND 1964

(thousands)

	As at December 31		
	1960	*1964*	*% increase*
Malaya	76.2	107.6	41
Sabah	3.3	6.2	88
Sarawak	4.6	7.2	57
TOTAL ...	84.1	121.0	44

Despite the higher rate of growth in the Borneo States, the ratio of telephones to population is still much higher in Malaya. Malaya's ratio of one telephone for every 13 people is well above that for most developing countries.

447. While the number of telephones installed has been increasing, trunk lines have been extended into new areas and the quality and capacity of existing trunk lines have been raised, particularly in Malaya. The most notable projects have been the extension of the micro-wave systems to the major Malayan west coast towns and the SEACOM connection linking Malaya and Jesselton with each other and with other countries. Automatic exchanges have been installed at many centres in Malaya and the capacity of manual installations increased. Direct dialling between some of the major cities in Malaya is now possible. Improvements have been made to the telegraph system and telex services have been extended. Improvements in the Borneo States have been for the most part limited to the extension of the local systems and to high frequency radio services for long distance communication.

448. During the period 1966-70 a sum of $143 million will be spent on the further development of telecommunication services in Malaysia. Communications between Malaya and Kuching will be greatly improved with the installation of a tropo-scatter system. This will improve the quality and reliability of communications to a level almost as high as that between Malaya and Jesselton via the SEACOM cable. The microwave system linking the principal East Coast towns of Malaya with the rest of the peninsula will be completed. The capacity of the Kuala Lumpur-Singapore microwave trunk line will be doubled and many spurs linking the main system with important centres will be added. In Sabah the principal west coast towns will be linked with Jesselton by microwave and some of the high frequency radio telephone services linking other centres in the Borneo States will be improved. Throughout Malaysia more automatic exchanges will be installed and existing manual exchange capacity at other centres extended. Telegraph, telex and other commercial services will be expanded and improved. Training facilities will be increased and the administrative services will be improved to meet the requirements of an expanded network. The Plan provides for an increase of about 35% in the number of telephone subscribers in Malaysia over the next five years.

VII.—POSTAL SERVICES

449. About $10 million will be spent on the improvement and extension of facilities and services for handling the increasing volume of mail during the next five years. In Malaya the largest project will be the establishment of a

new general post office and headquarters in Kuala Lumpur. A government building will be renovated for this purpose. Forty-four branch post offices in Malaya will be improved or extended. The use of mobile post offices will be expanded. As post offices are usually housed in buildings used for telecommunication purposes in the Borneo States, development expenditure for postal services is in this region is understated in Table 9-6.

VIII.—INFORMATION AND BROADCASTING

450. Most of Malaya's population is now within range of medium-wave broadcasting stations and the major West Coast urban areas all have T.V. coverage. In addition, Radio Malaysia has regular broadcasting services to other countries in South-east Asia.

451. In Malaya over the next five years, $42 million will be spent to extend and improve information and broadcasting services. The largest allocation will be for the completion of the Pantai Valley Broadcasting Centre, now under construction. When completed, the Broadcasting Centre will enable substantial improvements to be made in the quality and variety of radio and T.V. programmes. For domestic services, additional radio transmitters will be installed at Johore Bahru and Kajang, work on new or additional transmitters at Kuantan and Ipoh will be completed and transmitting and studio facilities at Kuala Trengganu will be extended. New high frequency transmitters will be purchased to broadcast to African, Middle East and Caribbean countries with a view to promoting Afro-Asian solidarity. An additional 40 mobile units will enable the Department of Information Services to increase the services it provides to rural areas. A national civic centre will be established at Petaling Jaya for the purpose of promoting national consciousness and unity.

452. In the Borneo States about $11 million will be spent to improve and extend radio broadcasting facilities. Studios and transmitting facilities will be expanded, principally at Kuching and Jesselton, and some improvements will be made to regional broadcasting facilities.

IX.—METEOROLOGICAL SERVICES

453. Development expenditure for meteorological services will amount to $272,000. Facilities for the reception of satellite weather data will account for the major part of this expenditure. Some of the other projects of the programme will improve short-term weather forecasting and tropical weather research.

X.—FINANCING PUBLIC DEVELOPMENT EXPENDITURE FOR TRANSPORT AND COMMUNICATIONS

454. The financing for the various development projects will be provided from three sources. These are the internal resources of the agencies

concerned, the revenues and other resources of Federal and State Governments and external assistance. While efforts will be made to increase the first two sources of financing through raising charges and taxes relating to transport and communication facilities and services, foreign assistance on a large scale will still be necessary if the programmes in the Plan are to be implemented. International financing is particularly important in this sector since the foreign exchange component of transport and communication development expenditure is relatively high.

455. Transport and communication projects that are justifiable in terms of high net benefits to the economy are usually eligible for external financing. This is particularly true if they have a large import content. Several such projects are included in the Plan. The largest is the Northern East-West Highway, which will cost $73 million, of which $32 million will be required over the 1966-70 period. The $10 million by-pass on Route II between Kuala Lumpur and Karak is another possibility for foreign financing. A $16 million loan already obtained from the Government of the Federal Republic of Germany will help pay for the port expansion at Penang/Butterworth. It should be possible to obtain additional loans for port expansion projects at Port Swettenham, Kuching and Sibu; the cost of these projects totals $48 million. Another project is the tropo-scatter communication system between Johore Bahru and Kuching. Much of the railway equipment and electronic equipment requirements for telecommunications and broadcasting are also amenable to external finance. In addition, assistance will be sought for some of the development roads in Malaya and the trunk roads in the Borneo States. Altogether, it is hoped that international financing will meet as much as one-third of the financial requirements for the $751 million transport and communications development programme.

TABLE 9-6

MALAYSIA: PUBLIC DEVELOPMENT EXPENDITURE FOR TRANSPORT AND COMMUNICATIONS, 1961-70

($ millions)

	Malaya	*Sabah*	*Sarawak*	*Malaysia*
*Roads:**				
1961-65	417.0	50.3	76.2	543.5
1966-70	255.5	54.2	79.8	389.5
Railways:				
1961-65	50.9	1.4	—	52.3
1966-70	20.0	1.3	—	21.3

* Includes P.W.D. Plant and Equipment and Road Transport Department.

	Malaya	Sabah	Sarawak	Malaysia
Ports:†				
1961-65	61.0	7.8	9.3	78.1
1966-70	80.8	7.3	25.6	113.7
Civil Aviation:				
1961-65	59.6	8.4	5.1	73.1
1966-70	9.0	6.0	6.5	21.5
Total Transport:				
1961-65	588.5	67.9	90.6	747.0
1966-70	365.3	68.8	111.9	546.0
Telecommunication Services:				
1961-65	84.9	5.0	7.0	96.9
1966-70	105.0	19.0	18.5	142.5
Postal Services:				
1961-65	4.9	0.4	‡	5.3
1966-70	9.0	0.6	‡	9.6
Information and Broadcasting:§				
1961-65	23.0	2.8	1.3	27.1
1966-70	42.3	6.0	4.8	53.1
Meteorological Services:				
1961-65	0.5	—	—	0.5
1966-70	0.3	—	—	0.3
Total Communications:				
1961-65	113.3	8.2	8.3	129.8
1966-70	156.6	25.6	23.3	205.5
Total Transport and Communications:				
1961-65	701.8	76.1	98.9	876.8
1966-70	521.9	94.4	135.2	751.5

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† Includes Marine Department.

‡ Allocation for Postal Services is included under that provided for Telecommunications.

§ Includes Radio, T.V. and Information Departments.

CHAPTER X

Utilities

456. The continued development of Malaysia's electricity and water supply systems is important to ensure that adequate capacity is made available to meet the needs of the growing industrial and commercial sectors and to make headway in meeting the demand for domestic consumption, particularly in the rural areas. In Malaya considerable progress has already been made in establishing extensive and efficient electricity and water supply systems. Over the period of the First Malaysia Plan, the need is therefore to maintain the extension and improvement of the Malayan systems in anticipation of the growing demands for water and power. By contrast, the systems existing in the Borneo States are much less developed. Work is therefore required during the period 1966-70 to extend the network of electricity and water supply systems so as to help establish a standard which is comparable to that now existing in Malaya.

I.—ELECTRICITY—MALAYA

457. During the last five years the demand for electricity by all classes of consumers increased by 75% from 997.8 million KwH in 1960 to approximately 1,750 million KwH in 1965. Over the same period two main power generating projects were undertaken and commissioned by the National Electricity Board (NEB) and one other by the Perak River Hydro-electric Company. These were the Cameron Highlands hydro-electricity scheme (106MW) and the Johore Bahru (30MW) and Malim Nawar (40MW) thermal power stations respectively. These projects resulted in an increase of the combined capacities of the NEB and Perak River Hydro-electric Company from 287 MW in 1960 to 471 MW in 1965.

FUTURE DEMAND FOR ELECTRICTY

458. Table 10-1 shows the rapid increases in demand for industrial, commercial and domestic uses which were experienced in the last ten years.

TABLE 10-1

MALAYA: ELECTRICITY CONSUMPTION BY CLASSES OF CONSUMERS, 1955-65

(Million KwH)

	1955	%	*1960*	%	*1964*	%	*1965*	%
Tin mining	442.4	63.0	498.4	50.0	679.4	46.0	770.0	44.0
Industrial and commercial ...	147.5	21.0	264.0	26.5	496.0	32.8	608.0	34.8
Domestic	110.9	15.6	233.0	23.3	338.4	21.0	370.0	21.0
Other	2.7	0.4	2.0	0.2	1.2	0.2	2.0	0.2
TOTAL ...	703.5	100.0	997.4	100.0	1,515.0	100.0	1,750.0	100.0

459. With the above information as a benchmark, projections have been made of the future demand for electricity. During the period 1955-1965 demand for electricity was dominated by tin mining. Power demands for this purpose are likely to increase further for the next three years and level off thereafter. Industrial users consume only 16.2% of the total power supplied at present. However, industrial expansion is expected to contribute substantially to the growth of power demand in the future. Some of the major potential industrial loads are expected to be concentrated in the Kuala Lumpur/Port Swettenham area, where a chemical complex and a number of other industrial and water supply projects are anticipated. Similarly, in the Butterworth area, which will become one of the centres for heavy industry, a number of industrial projects are in the course of construction. A sugar refinery has been completed and an iron and steel mill will be built. It is also likely that electricity will be needed for a flour mill, a jute mill, a paper and pulp plant and another steelworks. As a result it is estimated that demand by industrial consumers will increase to about 860 million units in 1970 and 2,410 million units in 1980. At the same time demands for commercial and domestic purposes will increase to 1,985 million units in 1970 and 4,680 million units in 1980. As shown in Table 10-2, total demand for power is expected to increase to 3,250 million units in 1970 and 7,500 million units in 1980.

TABLE 10-2

MALAYA: PROJECTED ELECTRICITY CONSUMPTION BY CLASSES OF CONSUMERS, 1970 AND 1980

(Million KwH)

	1970	%	*1980*	%
Industrial	860	26.5	2,410	32.0
Commercial	1,265	39.0	2,900	38.6
Domestic	720	22.0	1,780	26.4
Tin mining	400	12.5	400	3.0
Other	5	—	10	—
TOTAL ...	3,250	100.0	7,500	100.0

460. The major source of power in Malaya is the NEB. The two other large suppliers of electricity are the Perak River Hydro-electric Company and the City Council, George Town, Penang. Neither of these will construct any additional generating capacity during the 1966-70 period. By 1967 the Perak River Hydro-electric Company will start receiving bulk supply from the NEB to meet foreseen increases in demand. The City Council's existing capacities are more than capable of meeting present demand and it is envisaged that any further increase in demand will be met with power obtained from the NEB. The Plan provides $545 million for the power development of the NEB. This represents an increase of 55% over the amount spent during the Second Five-Year Plan.

GENERATION

461. The generation projects included in the Plan are indicated in Table 10-3.

TABLE 10-3

MALAYA: GENERATION PROJECTS, 1966-70

($ millions)

Batang Padang hydro-electric scheme (153MW)	121
Prai thermal power station (60MW)	45
Port Dickson thermal power station (120MW)	108
Bentong hydro-electric scheme (14MW)	20
Raub hydro-electric scheme (20MW)	20
Johore Bahru thermal station 1st extension (30MW)	14
Johore Bahru thermal station 2nd extension (30MW)	14
Upper Perak River hydro-electric scheme	25
Other generation projects	9
TOTAL ...	$375

462. It is anticipated that by the end of the Plan period the combined installed capacities of the NEB, Perak River Hydro-electric Company and Penang City Council will increase to about 915 MW. This will be almost double their present capacities. The energy generated is likely to increase from about 1,925 million units in 1965 to about 3,575 million units in 1970. *Per capita* consumption is expected to rise from 220 units to 345 units over the period.

463. Table 10-4 sets out all sources of power by mode of generation for 1965 and 1970.

TABLE 10-4

MALAYA: INSTALLED POWER CAPACITY BY MODE OF GENERATION, 1965 AND 1970

(Megawatts)

	1965 (actual)	1970 (target)	% increase
Hydro	138.8	326.8	136
Thermal	298.0	548.0	84
Diesel	34.2	40.2	19.4
Total generating capacity	471.0	915.0	94

HYDRO-ELECTRIC POWER

464. The main hydro-electric schemes now in operation are the Cameron Highlands (106MW), Ulu Langat (2.3MW), Chenderoh (27MW), Sempang (1.2MW) and Rahman (2.3MW). Total hydro generating capacity will increase by about 136% during the Plan period. This increase will be mainly attributable to the Batang Padang scheme, which will be commissioned in 1968. The Batang Padang scheme will have a capacity of approximately 154 MW and will supply some 530 million KwH per annum. This output will be one and a half times greater than that of the present Cameron Highlands hydro-electric scheme. This energy will be delivered into the combined systems of the NEB and the Perak River Hydro-electric Company. Two other hydro schemes will also be undertaken during the Plan period. These are the Raub and Bentong hydro-electric schemes, with a generating capacity of 20 MW and 14 MW respectively. Construction is due to start in 1966 at Bentong and 1968 at Raub. The two power plants are expected to be commissioned by 1968 and 1970 respectively. The construction of these two schemes will link the western towns of Pahang with the Central Network, thereby enabling the Board to shut down its existing diesel station at Bentong.

THERMAL POWER

465. The principal thermal plants now in operation are Connaught Bridge (80MW) and Malacca (30MW) in the Central Network, Malim Nawar (94MW) and Batu Gajah (24MW) in the areas supplied by the Perak Hydro-electric Company, George Town, Penang (40MW) and Johore Bahru (30MW). Thermal generation contributes about 61% of total electricity supply in Malaya.

466. Two thermal power stations will be constructed and commissioned during the Plan period, one at Port Dickson (120MW) and another at Prai (60MW). In addition, an extension of the Johore Bahru power station to accommodate two further sets of 30MW each and an extension of the Malacca power station to accommodate another 10 MW set will be carried out. Thus 250 MW of additional thermal generating capacity will be made available under the First Malaysia Plan.

DIESEL POWER

467. Medium and small diesel generating stations will continue to provide the necessary power in small towns and districts where the demand for electricity is too small to justify other methods of supply. The maximum demand on the majority of the Board's diesel power stations is doubling every seven years but the loads on stations in East Coast towns such as Kota Bahru, Kuala Trengganu and Dungun are increasing far more rapidly. Diesel plants will be transferred from certain West Coast power stations to the East Coast in 1966-68, thereby providing sufficient generating capacity to meet demand well into the next decade.

TRANSMISSION AND DISTRIBUTION

468. A sum of $137 million has been allocated for transmission and distribution facilities associated with all these generation projects. One of the major features in the development of the Board's transmission and distribution network will be the integration of the Central Network with the Northern Zone areas by 1967 to form one national grid extending from Alor Star in the north to Kluang in the south. The first phase of the interconnection will be the linking of the Perak River Hydro-electric Company's network with the Board's Northern Network in Province Wellesley and with the Penang City Council's power station on Penang Island. The second phase will be the interconnection of the Board's Northern Network with the Central Network at Kuala Woh, where the main station of the Batang Padang hydro-electric scheme will be located, and linked with the existing Cameron Highlands-Connaught Bridge transmission circuits. Finally, the extension of the Board's 132KV and 66KV transmission systems northwards to Alor Star and southwards to Kluang respectively will be effected. These improvements will establish an efficient and flexible Western Network system which will be capable of supplying power economically during both dry and wet periods. However, a gap will remain between Kluang and Johore Bahru, where prospects of load development at present do not

justify the interconnection of the Board's Western Network with the new Johore Bahru power station.

RURAL ELECTRIFICATION

469. The government recognises that electricity contributes towards improved living standards in rural areas and is anxious to extend this facility to the rural population as fast as possible. Rural electrification not only provides an amenity to the rural population but also serves to stimulate the processing of agricultural products, the growth of sawmills and other small-scale industries and the use of irrigation pumps and other agricultural equipment. The Plan makes a provision of $15 million for rural electrification.

FUTURE POWER DEVELOPMENT

470. A long-term power development programme is necessary to ensure that generation and transmission facilities are adequate to meet the growth in demand. Studies indicate that by 1980 maximum demand throughout Malaya will exceed 1,100 MW, compared with the present demand of about 335MW. These studies also suggest that by 1980 Malaya's hydro-electric potential will be fully utilized. After that date further expansion of demand will probably have to be met by other means, mainly by the development of new thermal power stations. The Board has already undertaken a survey of suitable sites for long-term thermal station development. Two locations have already been earmarked for the siting of future thermal stations, one at Lumut and the other at Port Dickson.

471. One major incentive for the industrialisation of the economy is the availability of plentiful and cheap electric power. With this end in view, the industrial tariff, covering large manufacturing users, will be reduced, as recently announced by the government.

IMPLEMENTATION OF DEVELOPMENT PROGRAMMES

472. The NEB has the necessary technical capacity to carry out these programmes as scheduled. The Malaysianisation of the Board's staff will be completed by the end of 1967. Extensive training programmes are being pursued to create the necessary local staff competence to perform all technical and managerial operations.

II.—ELECTRICITY—SABAH

473. The Sabah Electricity Board operates diesel generating sets in the various load centres in Sabah and is responsible for the development of

electricity in the State. Annual consumption is expected to increase from 35.3 million units in 1965 to 78.9 million units in 1970. The diesel generating capacity of the SEB will be raised from 18.7 MW at present to 44.8 MW in 1970. However, this expansion will not be sufficient to meet foreseen needs in the Jesselton area, where the demand for power is likely to reach a level at which diesel generation is uneconomic. Thus it will be necessary to install either hydro-electric or thermal generating capacity by 1970. The cost of the diesel generation programme, together with associated transmission and distribution facilities, will be $15.0 million. Of this amount $1.5 million will be provided by the government to encourage minor rural electrification projects. An additional $9 million has been earmarked as a preliminary and tentative allocation for the construction of either a hydro-electric or thermal generating station to serve Jesselton.

III.—ELECTRICITY—SARAWAK

474. The development of electricity in Sarawak is the responsibility of the Sarawak Electricity Supply Corporation (SESCO). A sum of $24.3 million has been provided for the expansion of SESCO's diesel generation, distribution and transmission facilities to meet the growth in demand, which is estimated at 14.5% per annum. Future demand, at least over the Plan period, will be dominated by domestic and commercial users. Industrial demand for power is not likely to be a substantial proportion of total demand, at least not until the coal fields at Silantek begin to be exploited.

475. Of the total allocation of $24.3 million, a sum of $1.2 million will be provided by the government for the promotion of rural electrification. Rural electricity is particularly important in Sarawak as an inducement to shifting cultivators to settle in the new land development schemes.

IV.—FINANCING THE ELECTRICITY DEVELOPMENT PROGRAMME

476. The power development programme for the whole of Malaysia over the next five years will cost $584.3 million. This is a vast capital programme and its financing will present considerable difficulties. A loan for the completion of two of the major projects in the Plan, amounting to $156 million, has already been secured from the World Bank. This loan will cover the foreign exchange costs of the Batang Padang hydro-electric scheme, the Prai thermal power station and associated transmission lines. In addition, it is hoped to obtain external assistance for other major generating projects and also for transmission and distribution development.

477. The Plan allocations for power development programmes are summarised in Table 10-5.

TABLE 10-5

MALAYSIA: DEVELOPMENT EXPENDITURE ON ELECTRICITY, 1961-70

($ millions)

	1961-65				*1966-70*			
	Malaya	*Sabah*	*Sarawak*	*Malaysia*	*Malaya*	*Sabah*	*Sarawak*	*Malaysia*
Generation	337.5	13.6	16.0	367.1	376.0	13.5	23.1	566.6
Transmission					16.0			
Distribution					121.0			
Administration and miscellaneous	—	—	—	—	17.0	—	—	—
Rural electrification	15.0	0.3	0.4	15.7	15.0	1.5	1.2	17.7
TOTAL ...	352.5	13.9	16.4	382.8	545.0	15.0	24.3	584.3

V.—WATER SUPPLIES—MALAYA

478. A sum of about $175 million was expended under the Malayan Second Five-Year Development Plan to improve and extend existing water supplies and develop new ones. The number of water supply systems rose from 140 in 1960 to over 170 by the end of 1965. Average daily output increased by 54% from 84 million gallons per day in 1960 to 130 million gallons in 1965. As a result, the number of people served by treated water supplies rose by about a million from 2.7 million in 1960 to 3.7 million in 1965.

479. The First Malaysia Plan provides for capital expenditure of $150 million, out of which $101 million will be spent on major capital works in the urban areas and surrounding rural areas and the remainder exclusively on rural supplies. The proposed capital expenditure will make available an additional 80 million gallons per day, which will ultimately benefit an additional 1.15 million people.

480. The major projects over the next five years will be undertaken to augment water supplies for the major towns of Kuala Lumpur, Malacca, Penang, Kota Bahru and Alor Star, where demand for water is expected to rise substantially as a result of rapid industrial development and urbanization. The water supply scheme for Penang, estimated to cost $50 million, will be capable of providing 25 million gallons per day initially and an additional 25 million gallons per day after further development. This expansion will provide enough water for the whole of Penang Island and Province Wellesley up to 1984, when the State's population is expected to be about one million. It will also meet the growing demand resulting from industrial development. In Malacca the proposed Sungei Muar scheme costing $18 million will have a capacity of 12 million gallons per day.

The scheme will supplement existing supplies of 9.4 million gallons per day, which are capable of serving only 200,000 people. The present plants are already working to maximum capacity and will not be able to cope with further increases in demand.

481. The rapid increase in population in Kuala Lumpur and the new town of Petaling Jaya has necessitated the construction of a new source of water supply, together with related distribution facilities. The new scheme will cost $50 million and is expected to provide an output of 60 million gallons per day after 1968 to augment existing supplies of about 40 million gallons. The new scheme should be able to meet the water requirements of the nation's capital and surrounding areas up to 1990.

RURAL WATER SUPPLIES

482. The number of rural water supply schemes increased from 111 in 1960 to 159 in 1965 under the Second Five-Year Plan. Continued efforts will be made in the next five years to extend further rural water supplies. A sum of $49 million has been allocated for this purpose.

WATER CHARGES

483. At present water charges do not cover the capital and operating costs of water supply schemes. In many cases the supply of water has been heavily subsidised by the government. In view of the growth in the level of private incomes, heavy subsidisation of water supply development is no longer necessary. In the future, water supplies, like other utility services, will be expected to be self-supporting as is the case in many countries, including even the developing countries. Consideration is therefore being given to increase water charges.

VI.—WATER SUPPLIES—SABAH

484. The demand for water in major towns such as Jesselton, Kota Belud, Tawau and Lahad Datu is fast exceeding present supply capacities. For example, in Jesselton the demand for water by all users reached a level of 1.5 million gallons per day at the end of 1964, while supply capacity was two million gallons. However, by 1970 the population in Jesselton is likely to reach 50,000 and a supply of three to four million gallons per day will be necessary to cope with peak demand. The Plan provides $2.8 million for expanding capacities in a number of towns, including those mentioned above.

485. Existing sources of supply in Sandakan are capable of yielding about one million gallons per day in dry weather. Present average daily consumption is about 0.6 million gallons. Although there are enough water resources

to meet existing demand, present capacity will fall far short of foreseen demand by 1970. The rate of increase of population in Sandakan at about 7% per annum is very high, while development in the area will further increase the demand for water. To meet the increased demand, work will be started on a new water supply scheme which will cost about $40 million.

VII.—WATER SUPPLIES—SARAWAK

486. The Plan provides an allocation of $9 million over the 1966-70 period for water supply development in Sarawak. Water supply systems in the main towns of Sarawak, including Kuching, Miri, Lawas, Semanggang and Sareki, will be extended. In addition, new water supplies will be provided to many villages and bazaars, particularly those in the coastal areas. Water supply development will also be undertaken in land development schemes.

VIII.—FINANCING THE WATER SUPPLY DEVELOPMENT PROGRAMME

487. In view of the size of the total water supply programme in the Plan and the limited resources available, it will be necessary to obtain external assistance for a number of major schemes including:

(i) the Penang State water supply scheme,
(ii) the Kuala Lumpur new water supply scheme,
(iii) the Sungei Muar water supply scheme in Malacca, and
(iv) the Sandakan water supply scheme.

488. The Plan allocations for water-supplies development are summarised in Table 10-6.

TABLE 10-6

MALAYSIA: DEVELOPMENT EXPENDITURE ON WATER SUPPLIES, 1961-70

($ millions)

	1961-65				*1966-70*			
	Malaya	*Sabah*	*Sarawak*	*Malaysia*	*Malaya*	*Sabah*	*Sarawak*	*Malaysia*
Urban supplies	174.9	14.6	17.9	207.4	101.0	41.3	5.4	147.7
Rural supplies		—	—	—	49.0	1.7	3.6	54.3
TOTAL ...	174.9	14.6	17.9	207.4	150.0	43.0	9.0	202.0

CHAPTER XI

Education and Training

I.—THE ROLE OF EDUCATION IN NATIONAL DEVELOPMENT

489. One of the main objectives of the First Malaysia Plan is to intensify and expand the development of human resources in the country. In recent years, there has been an increasing awareness of the vital role of the human factor in economic development. Studies of some countries suggest that perhaps 20% to 30% of the growth of national income may be attributed to quantitative increases in capital and labour inputs, while the remainder is due to qualitative improvements in these inputs, including increases in the productivity of human resources through education and training.

490. Unless the educational system is geared to meet the development needs of the country, there will be a misallocation of an important economic resource, which will slow down the rate of economic and social advance. While widespread basic education is necessary, a modern society requires people of varied educational attainments and skills. As the economy develops, the quality and experience of the labour force assume an increasing importance. For this reason, the rate at which trained manpower is produced constitutes an important determinant of the rate of advance which a country can achieve over time.

491. The development of education will therefore be a major effort in the Plan. To this end, the traditional system of education is being re-oriented to achieve not only the objectives of nation-building and universal literacy but also the economic goals of the country. The Education Committee Report of 1956 laid the foundation for a system of education which would be national in character and which would give every child a place in primary school. The Report also made recommendations for the expansion of secondary trade and technical education to meet

the needs of the country for trained personnel. Subsequently, as a result of the recommendations in the Education Review Committee Report of 1960, primary school fees were abolished in 1961 and the school-leaving age was raised to 14. The next major advance in the development of education was the introduction of the comprehensive system in 1965. The new system, which raises the school-leaving age to 15, is designed specifically to change the form and content of second-level education, which will henceforth offer a greatly expanded and more diversified range of courses. Students will be counselled to pursue courses appropriate to their aptitudes and interests. These changes in second-level institutions are important because this level provides the teachers for primary education, the students for higher education and the middle-level technicians to meet the nation's needs.

492. Ideally, the number of students completing education at different levels should correspond to the demand for manpower at those levels. In order to ensure that the education system meets manpower needs, educational development has to be co-ordinated with manpower planning. The first step towards co-ordinating educational development with manpower planning is already being taken. The Higher Education Planning Committee established in 1962 is attempting not only to estimate the manpower demand during the next twenty years but also to plan the educational facilities needed to meet this demand. To complement the task of the Higher Education Planning Committee, a manpower survey was carried out in 1965 to assess the resources currently available. Also, in recognition of the importance of manpower planning for economic development, a Manpower Planning Section has been established recently in the Economic Planning Unit (EPU). Its task will be to assess and keep under constant review the manpower requirements of the economy.

493. In the Borneo States the system of education is also undergoing changes. However, it will be some time yet before the educational system in these States can be co-ordinated with that in Malaya to meet the needs of the rapidly developing Malaysian nation. It should also be mentioned that the activities of the Manpower Planning Section of the EPU and the Higher Education Planning Committee will cover these two States.

II.—PROGRESS DURING 1961-65

494. The period 1961-65 was one of transition, with a number of changes being introduced to adapt the system of education to meet the needs of a rapidly developing independent nation. The changes introduced and the progress made are set out briefly in the paragraphs below.

495. Primary school fees in Malaya were abolished. Most of the partially assisted primary and secondary schools remaining outside the national system of education were brought into conformity with it. The school-leaving age was increased from 12 to 14 years and a reorganisation of the secondary school system was effected through the introduction of the comprehensive system of education. At the same time, a decision was taken to establish upper-secondary vocational schools, which will in future incorporate the educational facilities formerly provided in Sekolah[2] Lanjutan Kampong. The teacher training programme was integrated and streamlined to cope with the ever-increasing teacher requirements. A system of guidance counselling was introduced in lower-secondary schools, while Malay-medium secondary education was consolidated and the government's national language policy was implemented.

496. The main efforts in school education were to consolidate primary education and expand secondary educational facilities. An additional 5,890 classrooms were constructed in primary schools and 3,120 classrooms in secondary schools to enable their respective enrolments to increase from 979,350 to 1,231,740 and from 98,960 to 275,360 pupils between 1960 and 1965. Some of the old school buildings which were dilapidated and below acceptable standards were improved. In addition, about 50 hostels for some 5,000 pupils in secondary schools and about 1,000 teachers' quarters were constructed during the period.

497. In the field of college education, priority was given to the training of teachers in order to cope with the vast increase in school enrolment. Teacher training facilities were expanded by the completion of a new secondary teacher training college and three primary teacher training colleges and the provision of substantially improved and expanded facilities at three secondary and six primary teacher training colleges. The construction of two additional secondary and one additional primary teacher training colleges was begun. As a result, the total number of teachers graduated annually increased from 2,400 in 1960 to 3,260 in 1965, making it possible to close down the teacher training colleges at Brinsford and Kirkby in the United Kingdom.

498. An expansion programme was also carried out at the Technical College, Kuala Lumpur, to improve the teaching facilities available and increase total enrolments from 422 in 1960 to 680 in 1965 to meet the increasing demand for trained technical personnel at the sub-professional level.

499. Rapid development was also carried out in the University of Malaya during the period 1961-65. This development included establishment of a

new Faculty of Medicine and School of Education, extensions to the Faculties of Arts, Science, Agriculture and Engineering and the Library and completion of two residential colleges for 600 students and 71 housing units for University staff. In addition, the building programme for the Medical Centre was brought close to completion. Construction was also started on the Great Hall and the Administrative Block, both of which will be ready in 1966; the Teaching Hospital, which is scheduled to be completed in March, 1966; and two residential colleges for an additional 900 students.

500. Despite these vast changes and the demands which they placed upon planners and administrators of education projects, the progress achieved during the period under review was satisfactory. Education staff, both at senior and subordinate levels, was substantially increased.

BORNEO STATES

501. In the Borneo States the main development during 1961-65 was the construction of additional classrooms to cope with the ever-increasing school enrolment. A total of 1,236 classrooms was constructed in primary schools and 261 in secondary schools. It was also decided in 1965 that primary school fees would be abolished in these two States with effect from 1st January, 1966.

III.—PROGRAMMES UNDER THE FIRST MALAYSIA PLAN

502. The objectives of the education programmes under the First Malaysia Plan are as follows:

(i) to consolidate further the national educational system in order to promote social, cultural and political unity;

(ii) to provide educational facilities, particularly at the secondary level, to meet the needs of the increasing school-age population;

(iii) to improve the quality of education and to spread education opportunities more evenly throughout the country so as to correct imbalances between the urban and rural areas;

(iv) to diversify educational and training facilities by increasing such facilities in vital fields, especially those relating to agricultural and industrial science and technology;

(v) to accelerate teacher training in order to produce the necessary number of qualified and skilled teachers.

503. The following paragraphs describe briefly the programmes which have been planned to meet these objectives.

PRIMARY EDUCATION

504. In the field of primary education, it will continue to be the policy of the government to give a place in school to every child of primary school age. It is estimated that enrolments in Malaya will rise from their present level of 1.2 million to about 1.5 million by 1970, while those in Sabah and Sarawak will rise from 82,000 to 114,000 and 126,000 to 158,000 respectively. This is a considerable advance on existing enrolments and represents a substantial rise in the percentage of children of school age enrolled, especially in the Borneo States. In addition to the provision of expanded facilities for the increase in the school-age population, the Plan includes a programme to alter or replace sub-standard schools, mainly in the rural areas.

505. The success of the primary education programme depends on three important factors. Firstly, a greatly expanded supply of qualified teachers is essential. Teacher training will thus be given emphasis. Secondly, better facilities are required to make education more attractive; hence improved teaching aids will be used to make children more receptive to their education. A third factor, important particularly in Sabah and Sarawak and in the rural areas of Malaya, is the elimination of wastage caused by the premature withdrawal of children from school. Steps will be taken to reduce the proportion of such drop-outs in order to increase the effectiveness of educational expenditure.

SECONDARY EDUCATION

506. Secondary education over the next five years and thereafter will undergo major changes to meet the specialised needs of agriculture, commerce and industry as well as to provide for greatly expanded enrolments at secondary level. At present in Malaya, only 30% of the children who complete the first or primary level proceed to the secondary level. Under the First Malaysia Plan this proportion will be greatly increased.

507. The major change in Malaya is the introduction of the new comprehensive system of education. Under this system, all students completing primary education will be offered a further three years of education in lower-secondary classes. During these three years students will receive general education with a vocational or technical emphasis on industrial arts (woodwork, metalwork, electricity and power mechanics), agricultural science, commercial studies and home science. A counselling system will test the aptitudes and interests of students, who will then sit for an examination at the end of the three-year course. This examination will select about 45% of the lower-secondary enrolment for a further two years of post-comprehensive education. During these two years students will pursue

courses of study consistent with their aptitudes and interests in technical, vocational or academic fields.

508. In Malaya the first main group of pupils will sit for their Lower Certificate of Education Examination under the new system in 1967. Thereafter lower-secondary education will undergo a period of consolidation. Meanwhile, in upper-secondary education, including sixth form, changes will be introduced as a result of recommendations that will emerge from the review now being undertaken in the Ministry of Education.

509. A number of upper-secondary vocational schools will be established for the first time during the period of the First Malaysia Plan. These will begin to function from 1968 for those who have completed nine years of primary and lower-secondary education and who, by their inclination or choice, will not be entering upper-secondary academic schools. The main function of the vocational schools will be to supply the skilled technicians, craftsmen and artisans urgently needed by the agricultural, industrial and commercial sectors of the economy.

510. As a result of these changes, estimated enrolment in all secondary schools in Malaya will increase from 275,360 in 1965 to about 738,000 in 1970.

511. In both Sabah and Sarawak one of the greatest needs at present is for personnel with secondary education. In Sabah only about 20% of children in the secondary school-age group are in schools; provision is being made in the Plan to increase this percentage to about 30% by the end of 1970. In Sarawak the policy will be to provide places in government or government-aided schools for about 30% of those who complete their primary education. Most of the new places required will be provided in government secondary schools and the remainder in expanded existing aided schools. Provision has also been made in the Plan to improve science laboratories and workshops to meet the requirements of the new curriculum.

HIGHER EDUCATION

512. Higher education consists of both college education and university education. College education in Malaysia is primarily designed to supply the nation's needs for middle-level technicians. The development programme for the next five years includes expansion of the existing College of Agriculture at Serdang, establishment of a second college of agriculture and expansion of the Technical College in Kuala Lumpur, whose enrolment will increase from the present 680 students to 1,000 students by 1970. Efforts will also be made to expand the range of courses offered in all these

colleges. The establishment of a polytechnic will offer a wide variety of courses including chemical, rubber, food, aeronautical and motor technologies. Most of these courses are new and will not duplicate those presently available in other colleges.

513. The University of Malaya supplies the nation's needs for professional manpower, such as engineers, scientists, agriculturists, business managers and economists. At present it consists of Faculties of Arts, Science, Engineering, Agriculture and Medicine. During the Plan period, the University will begin for the first time to produce doctors and approximately 35 students will graduate from the Faculty of Medicine in 1969. At full capacity in 1972, the Faculty will have room for an enrolment of 790 students in the six-year undergraduate course of study and 112 post-graduate students. The annual output of the University at this time will be 80 doctors.

514. To increase further the capacity of the University to provide high-level manpower, the development programme during the next five years will enable the existing enrolment of 3,000 to be increased considerably. In addition, extensions of the existing faculties will be undertaken to provide better equipment and research facilities. High priority will be given to the production of graduates to meet the acute need for teachers required in upper-secondary academic schools and sixth forms. For the expansion of the Faculty of Engineering, assistance will be provided by the U.N. Special Fund. Training and research facilities will be enlarged to absorb 100 students per year for the civil, mechanical and electrical engineering courses. Other projects included in the overall programme for the expansion of the University are additional residential colleges, housing units for the university staff, further extensions to the Library and provision of miscellaneous services.

515. The Higher Education Planning Committee's study on the future demand for high-level manpower may indicate that additional university education facilities are necessary. In this case consideration will be given to the establishment of a university college in Penang.

TEACHER EDUCATION

516. Teacher training will be one of the most urgent tasks facing the educational system during the next five years. The improvement and expansion of teacher training facilities are therefore of the highest priority. Existing facilities are sufficient to meet the requirements for primary teachers but it will be difficult to produce secondary teachers in the numbers and variety of disciplines required for the new system of comprehensive education. The problem will be partly resolved by expanding existing

colleges and building new ones, although these are essentially long-run solutions. The development programme for teacher training includes completion of the Malayan Teachers' College at Johore Bahru and the Technical Teachers' Training College at Cheras Road, Kuala Lumpur; extensions and alterations to existing teacher training colleges, both primary and secondary; and establishment of two additional teachers colleges and one day training college. The programme also includes the supply of library materials and visual and teaching aids for existing regional training centres and the provision of accommodation for some of the staff of the above institutions. In teacher training, emphasis will be shifted from teaching methods to the study of the subject matter which the future teachers will have to teach. To this end, secondary teacher training colleges will henceforth specialise in different subjects.

517. As the expansion programme will be unable to meet fully all immediate needs, it will continue to be necessary to make use of part-time teachers. These teachers simultaneously teach and are trained in regional training centres. It is emphasised, however, that this is essentially a short-term solution introduced to meet the temporarily acute shortage of teachers arising from the sharp increase in the size of the education programme. Periodic refresher courses will be given for teachers already trained to expose them to the latest developments in education techniques and subject matter.

518. In Sabah and Sarawak there is also an urgent need for trained teachers in both primary and secondary schools. In Sabah, Kent College and Gaya College will be expanded to take an additional 120 and 80 teacher trainees, thereby increasing their total enrolments to 330 and 320 respectively. In Sarawak a new primary teacher training college will be established for 300 trainees with assistance from the New Zealand Government.

519. In spite of all these plans for the expansion of the supply of teachers, anticipated output in Malaysia will still fall far short of demand. Therefore teachers from overseas will be recruited. It is hoped that most of these teachers will be obtained under external assistance schemes.

IV.—OTHER EDUCATION AND TRAINING PROGRAMMES

520. While the formal education system must carry the main responsibility for producing the trained manpower for economic and social development, some needs, especially for more specialised services both in the public and private sectors, will continue to be met within industries and government departments themselves. The government will seek to ensure that all training facilities are fully utilised. The salient features of the government's programme in this field are described in the following paragraphs.

521. Specialised management and business skills will be developed through several measures. There will be a substantial expansion of the Dewan Latehan within the Majlis Amanah Ra'ayat. Facilities will be expanded and an improved and enlarged corps of teachers will be provided to enable a doubling of the present enrolment to about 600 in 1970.

522. The National Productivity Centre, which has been established with U.N. Special Fund assistance, will continue with the training of already-employed management personnel. The government will expand the services of the Centre and convert it to a quasi-autonomous institution with an enhanced capacity to attract well-qualified personnel to its training staff. Through such efforts to supplement the longer-range functions of the University, the school system and private training institutions, the country will progress rapidly in producing an adequate number of persons with management and business skills.

523. The training of craftsmen and artisans will be the subject of increasingly close co-operation between government and industry. Although long-term requirements for basic craft skills will be met mainly through vocational education followed by appropriate work experience, the output of the vocational schools cannot be expanded in major degree until 1970. Although the national apprenticeship programme is expanding steadily, only 900 apprentices are presently registered and more are needed. Increased government effort will be devoted to ensuring that employers with the capability of sponsoring this type of skill development accept the responsibility for doing so.

524. There are, however, shortages of skills for which neither apprenticeship nor vocational education provides an appropriate or timely solution. The government will consult with management and labour with a view to organizing specific training arrangements tailored to particular skill requirements. Wherever practicable, industry will be requested to share the cost of these training programmes. An allocation is included in the Plan for expansion of the facilities of the Industrial Training Institute to serve this purpose.

525. Finally, the government, in its role as the nation's largest employer, will continue to carry out large, diverse and growing training programmes. These training activities constitute a great part of the nation's programme for specialised training. Indirectly, through the normal mobility of trained personnel, they contribute substantially to the meeting of private sector requirements. As the school system assumes its role as the main provider of specialised manpower, many of these specialised government training facilities will need to be adjusted and co-ordinated with the general school system.

V.—ALLOCATIONS FOR EDUCATIONAL DEVELOPMENT

526. The estimated cost of implementing the above programmes is presented in Table 11-1.

TABLE 11-1

MALAYSIA: DEVELOPMENT EXPENDITURE FOR EDUCATION, 1966-70

($ millions)

Level of Education	*Malaya*	*Sabah*	*Sarawak*	*Malaysia*
Primary	54.6	7.8	12.3	74.7
Secondary	188.7	14.2	29.2	232.1
Technical*	30.8	2.9	2.8	36.5
University	30.0	—	—	30.0
Teacher training	28.5	2.3	1.1	31.9
Other education and training	35.4	—	0.2	35.6
TOTAL ...	368.0	27.2	45.6	440.8

527. Development and recurrent expenditure for education will absorb about 5% of GNP by 1970. This level of expenditure compares favourably with even some of the more advanced countries. Development expenditure on education over the next five years represents a sharp increase over the level during 1961-65. In order to alleviate the strain on the finances of the government, recourse will be had to foreign assistance. Local education rates have been reimposed and efforts will be made to ensure the maximum utilisation of facilities, including the use of double sessions and low-cost standardised buildings.

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* For Malaya, post-secondary level only.

CHAPTER XII

Health and Family Planning

I.—INTRODUCTION

528. Malaysia has made impressive progress in the area of medical and health services over the past ten years. As a result of this progress some problems of public health which were serious in the past are no longer so pressing. Epidemic disease and serious malnutrition, which pose a challenge to development in many other countries, are generally not a problem in Malaysia. However, a number of less pressing health problems exist and progress has not been uniform throughout all parts of the country. In particular, improvements of conditions in the rural areas of Malaya and in the Borneo States are needed if an adequate level of public health is to be enjoyed by all Malaysians.

529. The measures which have been undertaken in recent years have resulted in a steady improvement in health conditions in all the constituent states of Malaysia. Death rates, both general and infant, have declined significantly. In Malaya, for example, the infant mortality rate was 59 per thousand live births in 1963 as against the corresponding rate of 95 as recently as 1955. The death rate was 8.9 per thousand population in 1963 as against 11.7 per thousand population in 1955. Measures for the control and eradication of communicable diseases such as malaria, filaria, leprosy, yaws and diphtheria have resulted in a marked decline in the incidence of these diseases and deaths arising therefrom.

II.—PROGRESS DURING 1961-65

530. The health measures undertaken during the period 1961-65 may be considered under two broad heads—preventive and curative. The preventive measures may be further sub-divided into the control and/or eradication of communicable diseases and promotion of health and sanitation. With

regard to control of communicable diseases, the main task in Malaya was the control of TB as a major public health problem, which involved intensifying the BCG vaccination campaign and identifying early infectious cases with a view to rendering them non-infectious. In Sarawak the major task since 1959 has been malaria eradication. Control measures involving spraying and surveillance were undertaken in the more remote areas of the State, which border Indonesia, where the disease is still prevalent. In other parts of Sarawak maintenance measures were required in order to prevent any recurrence of infection.

531. The main programme in the promotion of health and sanitation in all states was the rural health service, which involved the building of health centres, sub-centres and mid-wives clinics. In Malaya a total of 31 main health centres, 132 sub-centres and 645 mid-wives clinics were constructed during the five-year period. These facilities provide both preventive and curative services, including two specialised services—dental health care and maternal and child health care. In Sabah and Sarawak a similar scheme is in existence.

532. The main targets of the dental health service were school children, the pre-school group and pregnant and nursing mothers. In Malaya, on account of the increased facilities, the total number of pre-school and school children given dental service increased from 458,000 in 1960 to 646,000 in 1964. In Sabah and Sarawak the respective figures for total attendance of school children for 1965 were 12,000 and 48,000 as against 2,000 and 27,000 in 1960. For maternal and child health care in urban areas, another four clinics were built in Malaya during the five-year period in addition to the 124 urban health centres already in existence.

533. As regards curative measures, new hospitals and extensions and improvements to existing institutions constituted the main items of development. Four new hospitals in Sarawak, one in Sabah and one in Malaya were built. Considerable extensions and major improvements were undertaken to existing hospitals. As an index of progress, the total bed strength in Malaya rose from 21,000 in 1960 to 23,000 at the end of 1964. In Sabah and Sarawak the corresponding figures for 1965 were 1,471 and 1,705 as compared to 996 and 1,262 in 1960.

534. Despite the improvements which have been achieved, there are still a number of problems to be solved. For example, health facilities in Sabah and Sarawak are relatively less developed than those in Malaya. Throughout the country medical facilities and personnel are not evenly distributed between urban and rural areas. The ratio of medical personnel and facilities to population in respect of Malaya, Sabah and Sarawak is shown in Table 12-1.

TABLE 12-1

MALAYSIA: RATIO OF DOCTORS, NURSES AND HOSPITAL BEDS TO POPULATION

	Malaya *1964*	*Sabah* *1963*	*Sarawak* *1964*
Doctors	1:6,000	1:13,100	1:14,000
Nurses*	1:2,500	1: 1,500	1: 3,000
Hospital beds	1: 270	1: 450	1: 460

III.—OBJECTIVES OF THE MEDICAL AND HEALTH PROGRAMME, 1966-70

535. The medical and health programme to be undertaken under the First Malaysia Plan is designed to alleviate some of the shortages and deficiencies described earlier and make further advance in the provision of better medical and health services to the population. The emphasis will continue to be on preventive health and training projects although provision will also be made for additional curative measures.

536. The broad objectives of the medical and health programme are as follows:

(i) to expand and improve medical and health facilities, especially in rural areas;

(ii) to provide facilities for the training of personnel to man these services;

(iii) to promote the general health of the population by systematic control of communicable diseases, improvement of environmental sanitation and nutritional standards and provision of more and better specialised services; and

(iv) to establish a programme of family planning.

The main features of the programme designed to meet these objectives are described in the following paragraphs.

IV.—PREVENTIVE SERVICES

CONTROL OF COMMUNICABLE DISEASES

537. *Tuberculosis control:* In Malaya the objective is to continue the national campaign launched in 1961 for controlling tuberculosis. The campaign involves: firstly, identifying infectious cases in the community and rendering them non-infectious; secondly, continuing the BCG vaccination programme; and thirdly, conducting case-finding campaigns in selected

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* Includes hospital assistants and assistant nurses.

groups of the community to discover early cases of pulmonary TB which can easily be treated on an outpatient basis. The programme for the next five years involves the expansion of existing facilities, both for prevention and cure, the continuation of the training of technical personnel and the gradual rectification of existing deficiencies. In Sarawak the TB control programme begun in 1960 will be intensified. In Sabah the programme is aimed at consolidating the tuberculosis control service, which is now operating on a State-wide basis. The programme in both States has received substantial assistance from Australia under the Colombo Plan. In Malaya 384,000 new-born babies and 535,000 persons living in TB-risk areas have been given BCG vaccinations since 1961. The case-finding campaign X-rayed 821,000 persons during the same period and uncovered 9,848 confirmed cases of pulmonary TB.

538. *Leprosy services:* In Malaya the programme is to improve the existing facilities in the Leprosarium at Sungei Buloh in order that it may become the national centre for leprosy control. The leprosy control programme, which is aimed at the eradication of leprosy as a public health and social problem, will lead to the eventual abolition of expensive sanatorium care. A total of 21 clinics will be set up in existing district hospitals, to be supervised from 10 main clinics attached to general hospitals. In Sarawak the programme will provide facilities for the domiciliary treatment of leprosy.

539. *Malaria eradication:* In Sarawak the objective is to consolidate the eradication campaign undertaken with WHO and UNICEF assistance. Only the more remote area bordering Indonesia still requires control measures involving spraying and surveillance. For the rest of Sarawak maintenance measures will be continued in order to prevent any recurrence of infection.

PROMOTION OF HEALTH AND SANITATION

540. *Rural health services:* The First Malaysia Plan will consolidate and expand the rural health services and special emphasis will continue to be given to preventive work. The majority of the population still lives in rural areas, where one of the pressing needs is the improvement of rural health by environmental sanitation, health education and mother and child care.

541. In Malaya the programme provides for completion of schemes started under the Second Five-Year Plan and extension of the network of health centres, sub-centres and clinics to additional rural areas. A total of 60 sub-centres and 450 mid-wives clinics is planned. In Sarawak improvement of environmental sanitation in the rural areas, with special

reference to health education, will be one of the main activities. Personnel required to implement this scheme will be recruited and trained. They will work closely with other members of the rural health services and in co-operation with field staff in other departments, such as agricultural extension workers. In Sabah area health units will be established. Each unit will consist of at least one "cottage" hospital, district health centres, village group sub-centres and dispensaries. A variety of services will be provided in each area unit; these include maternal and child health care and school dental treatment. These area units will be linked to the major hospitals. The hospitals will undertake the actual treatment and management of patients, while the area services will be responsible for all other aspects of curative and preventive work.

542. *Dental health service:* In Malaya the objective is to continue and expand the dental care service for school children. In Sarawak it is planned to enlarge the existing dental service to provide treatment and care to about 40,000 children per year as against the present 12,000. Service for the general public will also be provided by special dental clinics.

543. *Urban health service:* The programme in Malaya will consolidate maternal and child health facilities in urban centres where existing facilities are inadequate. It is expected that six centres will be constructed under this programme.

V.—CURATIVE SERVICES

544. In the field of curative medicine, measures will be taken to establish institutional facilities in areas which are still without them, to improve existing facilities and to increase the number of doctors, medical technicians, nurses and mid-wives. In Malaya major schemes in this category are mainly hospitals already approved under the previous Plan.

545. *New hospitals:* New hospitals in Malaya will be established at Kuala Lumpur, Seremban, Petaling Jaya (teaching hospital), Tanjong Karang, Changkat Melintang (Perak) and Dungun. In Sarawak six treatment centres in the form of small local hospitals will be built. The biggest project is the first phase of the new Sarawak General Hospital in Kuching, which initially will have 300 beds and eventually 570 beds. In Sabah a 288-bed hospital will be built at Tawau and cottage hospitals will be constructed at Beaufort, Bandan-Kudat, Papar and Semporna.

546. *Extensions and improvements:* Existing facilities in a number of institutions throughout the country will be improved and expanded in order to upgrade hospital services and enable more people to be treated.

547. *Mental hospitals:* In Malaya the programme is intended to improve and remodel the over-crowded and unsatisfactory mental institutions at

Tanjong Rambutan and Tampoi. It is also aimed at the development of community mental health services. A new mental hospital with accommodation for 250 persons is being planned at Jesselton and will replace the existing mental hospital at Sandakan.

VI.—FAMILY PLANNING

548. A new policy to be adopted under the First Malaysia Plan is the implementation of a positive programme for family planning. With population growing at the rate of 3% per annum, the effort made to raise the level of living has to be very large indeed in order to make any real impact. This high rate of population growth is due partly to the rapidly declining death rate resulting from more and better medical and health services and partly to the high birth rate. To prevent any increase in income from being nullified by rapid population growth, a large programme of family planning will be implemented.

549. The experience of the Family Planning Association has proved that large numbers of people in both urban and rural areas of the country are now keenly aware of the desirability and need to limit the size of their families in order to maintain better educational and living standards. Family planning is of vital importance from the point of view of mothers' health and child care and will be implemented in conjunction with the extension of medical facilities and public health. Family planning services will be made available to those who desire it. In many parts of the country the main handicap is the lack of knowledge and the non-existence of adequate facilities for family planning.

550. A concentrated effort will be made to popularise family planning. A sum of $2 million has been provided under the First Malaysia Plan for this programme. As the campaign of family planning gathers momentum and gains acceptance, more funds may be needed and will be provided. Voluntary organisations, government departments and mass media communications will be utilised to help carry out the educational and promotional work of family planning. The success of this campaign will bring great dividends in terms of improvement of mothers' health and living standards.

551. In implementing the family planning programme, the government's efforts will be supplemented by assistance from the Ford Foundation, which has agreed to provide technical assistance and training. As an initial step, a section will be set up in the Economic Planning Unit to work under the Cabinet Sub-Committee on Family Planning to direct and conduct preliminary organisational work, including surveys required to launch the programme. A National Family Planning Board will soon be established to carry out an intensive programme on a national scale. The Department

of Statistics will also be suitably strengthened to enable it to assist in conducting sample surveys and demographic studies connected with family planning.

VII.—FINANCING DEVELOPMENT EXPENDITURE FOR HEALTH AND FAMILY PLANNING

552. The breakdown of total cost for the health and family planning programme is shown in Table 12-2.

TABLE 12-2

MALAYSIA: DEVELOPMENT EXPENDITURE FOR HEALTH AND FAMILY PLANNING, 1966-70

($ millions)

	Malaya	*Sabah*	*Sarawak*	*Malaysia*
I. PREVENTIVE SERVICES:				
Control of communicable diseases—				
T.B. control	3.0	0.2	0.2	3.4
Leprosy control	1.0	—	—	1.0
Malaria eradication	—	—	0.6	0.6
Sub-Total	4.0	0.2	0.8	5.0
Promotion of health and sanitation—				
Rural health service	20.0	6.1	0.9	27.0
Dental health service	1.3	—	0.7	2.0
Urban health service	1.0	—	—	1.0
Municipal clinics	0.4	—	—	0.4
Sub-Total	22.7	6.1	1.6	30.4
II. CURATIVE SERVICES:				
New hospitals	98.0	2.8	17.6	118.4
Extensions/equipment	12.0	5.6	0.3	17.9
Other hospitals/institutions	1.0	2.4	0.1	3.5
Sub-Total	111.0	10.8	18.0	139.8

	Malaya	Sabah	Sarawak	Malaysia
III. OTHER PROJECTS/PROGRAMMES:				
Training programmes	3.0	—	0.3	3.3
Institutional quarters and hostels ...	5.0	0.4	—	5.4
Miscellaneous	2.7	0.5	0.3	3.5
Sub-Total ...	10.7	0.9	0.6	12.2
IV. FAMILY PLANNING	2.0	—	—	2.0
TOTAL ...	150.4	18.0	21.0	189.4

553. The level of planned expenditure of $150.5 million in Malaya is nearly 50% more than the amount expended during 1961-65. In Sabah and Sarawak the planned expenditure of $18 million and $21 million respectively for the next five years is about 250% and 260% respectively of the level during the previous five years.

CHAPTER XIII

Social and Community Services

I—INTRODUCTION

554. The area of social and community services encompasses a variety of programmes designed to promote the welfare of the rural and urban populations by providing improved housing, community facilities, welfare and other services. The importance of such services extends beyond the number of tangible facilities provided or the quantity of resources utilized. These activities are concrete evidence of the government's concern and efforts to improve the welfare of the weaker sections of the population and emphasize the essential human value in national economic and social development.

555. The rapid growth of urban population over the last decade has resulted in acute over-crowding in Kuala Lumpur, Georgetown, Ipoh, Malacca and some other major towns. These towns grew up as small commercial centres serving the surrounding rural areas. With the unprecedented expansion of commercial activities in these towns, they have now outgrown their original scale and function. The prosperity in the towns has created an influx of people from the rural areas, drawn by better opportunities for earning a living. This movement has turned some parts of these towns into slums, giving rise to unhealthy living and social conditions. Government is determined to eliminate the undesirable and unhealthy effects of urbanisation and industrial growth through a well-conceived programme for urban renewal and development and to provide for orderly growth and transition in the years to come.

556. The problems which exist in the rural areas are of a different order. Although substantial progress has been made by the government in providing the rural areas with increasing social and community services, the scale of these facilities is still limited. In order to help enhance the

living standards of the rural population, the First Malaysia Plan will seek further to improve the availability of community and social services in the rural areas.

557. The following paragraphs deal with some of the main government programmes in the area of social and community services.

II.—HOUSING

558. It is estimated that about $850 million was invested in housing during the last five years by both the public and private sectors. Urban residential construction undertaken by the private sector showed a rising trend. It is anticipated that the volume of such construction will continue to increase during the First Malaysia Plan period.

559. Low-cost housing is one of the major efforts of the government to promote the welfare of the lower income groups. The incomes of this economically weak section of the community are too low to encourage private developers to enter this field of housing development. Although under the Constitution housing is a State subject, the Federal Government provides financial assistance by way of loan funds on generous terms to state governments to undertake low-cost housing projects. The services of the Housing Trust are made available to provide technical aid. Municipalities generally employ their own technical staff, although some use the Housing Trust.

560. Public expenditure for low-cost housing and housing for public employees in Malaya during 1961-65 amounting to about $45 million and $25 million respectively. A total of about 8,400 low-cost housing units was constructed, ranging from detached timber houses to multi-storey flats. In respect of housing for the public service, the main emphasis was on the construction and renovation of labour lines. A total of 4,837 units was built. During the same period, public expenditure for low-cost and other housing in Sabah and Sarawak amounted to $9.8 million and $7.5 million respectively.

561. Housing for both the lower income groups and public employees in some of the major urban areas remains in short supply relative to demand. In order to help meet the housing needs of these two groups, the Plan provides for a substantially larger scale of investment during the next five years. Allocations for low-cost housing total $150 million in Malaya. In Sabah and Sarawak $5.0 million and $7.5 million respectively have been allocated for low-cost and other housing. In addition expenditure for housing for public employees will be $23.2 million in Malaya and $2.4 million in Sabah. This will enable an intensified phase of housing development to take place so

that the most immediate problems posed by the housing shortage will be met.

562. In Malaya low-cost housing units will be built in the Federal Capital and in the larger urban areas in order to relieve congestion and combat the squatter problem. Slums will be cleared and squatters rehoused so that the land vacated can be utilized for other development purposes. In order to economise on the use of valuable land and reduce construction cost, multi-storey flats will be built. The prefabricated or industrial system of building construction will be introduced and at least three pilot projects undertaken. The benefits of this new technique of construction are expected to be speed and lower cost as compared with the conventional methods of construction. The pilot schemes are intended also to ascertain the feasibility of introducing the industrial system on a larger scale. In the smaller urban areas and in the rural areas timber and terrace houses will continue to be built.

563. The government is considering the establishment of a central housing authority to assist in the planning and effective implementation of an expanding programme of housing development. The authority is expected to co-ordinate the housing programmes of state governments and give technical guidance on matters relating to finance, siting, types of houses, costs, materials, desirable community facilities and other features requiring specialised knowledge. In the field of finance, the authority will explore possibilities of mobilising savings and other forms of private capital to supplement the funds that will be made available by the government and channel such financial resources as may be obtained for housing development. It is hoped also that the authority will conduct a survey of the housing needs of the country in order to formulate long-term plans for housing development.

564. In addition to public housing development, the government will give every encouragement and assistance to private housing developers.

565. Action will be taken by Federal, State and Municipal authorities during the Plan period to avoid the recurrence of slums and overcrowding in major urban areas. Measures to be taken include the control of urban land values and physical planning for the proper use of land in urban areas.

III.—MAJOR SEWERAGE SCHEMES

566. There is an urgent need to improve and extend the sewerage systems in Ipoh, Kuala Lumpur, Georgetown, Malacca and other major towns, especially in congested areas which are at present unsewered. This will help improve health conditions as well as the drainage systems in these areas.

567. A sum of $12 million has been allocated for a sewerage scheme in Ipoh. The scheme is a comprehensive one, which will result in all houses within the central town area being sewered. In Kuala Lumpur the sewerage system will be extended to the areas of Sentul and Setapak. A sum of $2.2 million has been allocated to enable this project to be started. In addition, the sewerage purification facilities at Pantai will be considerably extended to deal with the increasing sewage flows from Kuala Lumpur. The cost of this project is estimated at $3.9 million. The Plan also provides for the extension of sewerage facilities in Georgetown at a cost of $2.5 million. At present the sewerage system serves about 60% of the population in Georgetown and this improvement will help in meeting the objective to have the whole town sewered. In Malacca town the recent report on the outbreak of cholera confirms the danger of bad sanitation and the need, among other things, for a proper sewerage system. A sum of $1 million has thus been provided for improving sewerage in Malacca town.

IV.—FIRE SERVICES

568. Most of the country has an adequate coverage of fire protection services and under the Plan this will be further improved by the construction of new fire stations and accommodation for firemen at a total cost of about $4 million. A new Central Fire Training School will be built at a cost of about $0.6 million to meet the increasing demands for training in fire protection as well as in fire prevention and research.

V.—CULTURE, YOUTH AND SPORTS

569. In Malaysia about 60% of the population is under 25 years of age. The government will seek to provide every facility to help youths to become productive and self-reliant members of society. The culture, youth and sports programme is intended to encourage and develop youth activities designed to foster creative thinking, interest in arts and culture, community co-operation and youth leadership. Through recreational, cultural and sports activities Malaysian youths will be helped to develop healthy bodies and minds. A sum of $3.3 million has been provided in the Plan for the construction of 12 multi-purpose centres at state level throughout Malaysia. These centres will provide facilities for training courses in leadership, instruction and coaching in sports and cultural activities such as music, dances, dramatics, arts and crafts. In addition, $1.0 million has been allocated for the provision of other recreational and cultural facilities.

570. The Ministry of Culture, Youth and Sports has also been provided with $8.1 million to organise a youth corps, as discussed in Chapter V.

VI.—OTHER COMMUNITY SERVICES

571. In addition to the programmes described above, a total of $55.5 million has been provided in the Plan for other community service projects in Malaya. Of this, at least $25 million will be expended on projects in the rural areas. These projects will include the improvement of drainage, provision of markets, rural paths, small water supply schemes, dams, halting sheds, jetties, community centres and playing fields. These amenities, though small in themselves, will improve local living conditions and give the rural people a sense of participation and a share in the fruits of the country's progress.

572. In Sabah and Sarawak provisions of $8.3 million and $11.0 million respectively have been made. In Sabah the sewerage systems in Sandakan, Jesselton, Tawau and other towns will be extended.

573. The provision for Sarawak will be used for town and commercial development and small rural development projects. Bazaars will be constructed in villages and in areas which have recently been opened up as a result of expanding road communications.

574. In addition to paying particular attention to the needs of the rural areas, government will continue with its efforts to cater for the special requirements of those who need social welfare services and the aborigines.

VII.—WELFARE SERVICES

575. During the period 1961-65 a total of $5.8 million was expended in Malaya and $0.1 million in Sarawak for welfare services. Among the major projects completed in Malaya were a Rehabilitation Centre for the Physically Handicapped, an Old Persons Home, a Remand Home, three Children's Homes and one Women and Girls' Protection Home. Another Remand Home and a Women and Girls' Protection Home are under construction and will be completed in early 1966. Expenditure for welfare services during the next five years will amount to $8.7 million in Malaya, $0.4 million in Sabah and $0.7 million in Sarawak, making a total of $9.8 million or about 66% more than the expenditure in the last five years. The programmes will include provision for custodial and rehabilitation services for the handicapped to enable them to become useful and self-supporting members of society. Attention will also be given to the amelioration of distress, custodial care of orphaned children and the provision of reformatory services for juvenile delinquents. The overall programme will provide additional Old Persons Homes, Children's Homes, Homes for the Handicapped, Women and Girls' Protection Homes and reformatory institutions in Malaya, Sabah and Sarawak.

VIII.—ABORIGINES

576. During the next five years the government will continue with its efforts to integrate the aborigines into the main stream of social and economic life.

577. Over the past five years, $2.5 million was provided for projects to assist the aborigines. These were primarily devoted to creating the necessary health and educational facilities through the provision of medical posts and schools. While continued efforts will be made under the First Malaysia Plan further to improve and expand such health and educational facilities, more will be done to assist the aborigines to become economically more productive and progressive. The programme in the next five years therefore will emphasize agricultural development to raise the living standard of those aborigines who have adopted a settled form of agricultural livelihood. This group constitutes between 30% and 40% of the total population of 50,000 aborigines in Malaya. It is hoped also that through such improvement in the well-being of the settled aborigines, other aborigines will be induced to change to a more settled way of life. A provision of $3.8 million has been made in the Plan for all these purposes.

578. The allocations for Social and Community Services under the First Malaysia Plan are shown in Table 13-1.

TABLE 13-1

MALAYSIA: DEVELOPMENT EXPENDITURE FOR SOCIAL AND COMMUNITY SERVICES, 1966-70

($ millions)

	Malaya	*Sabah*	*Sarawak*	*Malaysia*
Housing—				
Low-cost and other housing	150.0	5.0	7.5	162.5
Government housing	23.2	2.4	—	25.6
Major sewerage schemes*	21.6	—	—	21.6
Fire services	4.6	—	—	4.6
Ministry of Culture, Youth and Sports ...	11.6	0.4	0.4	12.4
Community services*	55.5	8.3	11.0	74.8
Welfare services	8.7	0.4	0.7	9.8
Aborigines	3.8	—	—	3.8
TOTAL ...	279.0	16.5	19.6	315.1

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* Expenditure for other sewerage schemes is included under the provision for "Community Services".

CHAPTER XIV

General Administration

I.—DEPARTMENTAL PROGRAMMES

579. While main emphasis is given in the Plan to economically productive projects, it is necessary at the same time to improve and expand facilities for general administration. The capital expenditure requirements are mainly for additional office accommodation and other public buildings to meet government's increasing responsibilities. The programme of $33.[illegible] million for government buildings in Malaya will provide, *inter alia*, for new office buildings for several ministries and departments. Sums of $12.5 million and $6.1 million have also been allocated for Sabah and Sarawak respectively.

580. Other development expenditures included under the category of General Administration are described briefly in the following paragraphs.

581. *Judicial.*—The programme for 1966-70, amounting to $5.7 million, will provide for the replacement of some 32 courthouses in various parts of Malaya and construction of a new courthouse in Jesselton to accommodate both the High Court and the Magistrate's Court.

582. *Customs and Excise.*—The $5.2 million which has been allocated will provide for additional staff quarters and offices, expansion of the Customs Training College in Malacca and the purchase of additional launches and equipment to strengthen the facilities for anti-smuggling work.

583. *Chemistry.*—With the allocation of $0.7 million, a more comprehensive regional laboratory service will be established. Branch laboratories will be set up in Kuala Trengganu and Kluang in addition to the existing ones in Petaling Jaya and Penang.

584. *Printing.*—During the last Plan, the Printing Department expanded its facilities to cater for printing in the National Language in addition to English. In the current Plan continued improvement will be effected through an expansion of the headquarters unit, provision of a new printing office at Johore Bahru and replacement of machinery and equipment at Alor Star

and Kuala Trengganu. A sum of $1.2 million has been provided for these projects.

585. In Sarawak improvements will be carried out to the building of the Government Printing Department in Kuching and additional printing equipment will be provided at a total cost of $0.4 million.

586. *Prisons.*—The programme for Malaya, amounting to $16.6 million, will provide for additional staff quarters and improvement to existing prison buildings. Of the total, $8 million has been earmarked for a new prison and headquarters office in Kajang. The present prison buildings, which stand on valuable property in the heart of the Federal Capital, will be vacated to make way for development of the area. The programme for the Borneo States, amounting to $4.1 million, will provide for a number of prisons and staff quarters to be constructed.

587. *Ministry of External Affairs.*—The programme of $12.5 million will provide largely for the expansion of existing chanceries and official residences. The construction and purchase of new mission buildings will be necessary in some countries, particularly with the establishment of more foreign missions in Asia and Africa.

588. *Labour and Industrial Relations.*—A sum of $0.4 million has been provided for the renovation and replacement of several labour offices. New labour offices at Petaling Jaya and Ipoh will be completed. In addition, $1.5 million has been allocated for the expansion of vocational training on a national basis, as described in Chapter XI.

589. *Survey.*—An allocation of $2.4 million has been provided in Malaya for the construction of a number of new labour lines, completion of the building programme of survey offices at Kuala Lumpur, Kemaman, Kuantan and in Kedah and purchase of additional machines for printing and mapping.

590. A sum of $2.5 million has been allocated to Sarawak to enable the topographic mapping of the State to be completed.

591. For Sabah, $7.6 million has been provided for lands and surveys. Topographical surveys and map production in Sabah will be expanded and equipment facilities for survey work will be further improved. It is proposed also to provide a number of prefabricated type of quarters and offices for survey teams working on land settlements and other development schemes.

592. With the growth of towns and the marked shortage of state land in Sabah, it is proposed to acquire privately-owned land to provide for new roads, road widening and other projects in urban and suburban areas. In addition, substantial reclamation of land will be undertaken in the major towns. While the Borneo Development Corporation Ltd. and other development corporations will be encouraged to carry out reclamation and

development, the government will on its own undertake a certain amount of reclamation work which would not ordinarily be handled by such corporations.

593. *Consultant Services—Sabah.*—In view of the limited technical capacity in Sabah, a sum of $4 million has been allocated in the Plan to meet the cost of consultant services for a number of major development projects.

594. *Prime Minister's Department.*—Provision has been made in the Plan to complete a land capability classification of Malaya. This project will provide information on natural resource potentials, including mineral potentiality, soil suitability, forest productivity and water resources in alienated and unalienated areas. This information will be related to the existing land use pattern, thus enabling sound land utilisation policies to be formulated. A sum of $1.5 million has been allocated in the Plan for this project. In addition, the Canadian Government has agreed to make available assistance under the Colombo Plan of a sum of about $3.8 million to cover the cost of an aerial photographic survey of Malaya and the provision of technical personnel.

595. The remainder of $0.5 million provided is to meet the costs of freight charges for shipment of various kinds of capital equipment donated by Canada under the Colombo Plan.

596. *Statistics.*—Efforts will be made to widen the range and improve the quality of statistics for government administration, policy formulation and planning. In particular, the statistical services in Sabah and Sarawak will be improved in order to bring various statistical series to a comparable level with those produced for Malaya and to provide statistics on a pan-Malaysian basis. In Malaya statistical facilities will be further improved by the installation of an electronic computer. A number of sample surveys in new statistical fields will be conducted. The decennial Census of Population and the Census of Agriculture will also be undertaken in 1970. A sum of $6 million has been allocated for the statistics programme.

597. *Game.*—During 1966-70, the Taman Negara (national park) in Pahang will be provided with improved internal transport and more and better tourist accommodation in keeping with its growing status as a tourist attraction. Some replacement of labour lines will also be undertaken. A sum of $0.7 million will be expended to carry out the above projects. In addition, $0.2 million has been allocated to the Department for new offices and quarters in Kelantan and Negri Sembilan.

598. *Tourism.*—Malaysia is being visited by more and more tourists from abroad. This is a healthy trend, which helps Malaysia to become better known to the world at large and promotes closer ties with other countries.

At the same time an increasing amount of foreign exchange is being earned from tourism. In the coming years, the government will make greater efforts, in association with private enterprise, to facilitate and promote tourist travel to and within Malaysia through the provision of better facilities. For this purpose a sum of $2 million has been allocated. Tourist information centres in Kuala Lumpur and Port Swettenham will be improved and more recreational facilities will be made available in the Kuala Lumpur area. The potential of the tourist industry in Malaya and the Borneo States will be carefully appraised to serve as a basis for further promotional and development work.

II.—SUMMARY OF DEVELOPMENT EXPENDITURE ALLOCATIONS

599. A summary of General Administration expenditure allocations under the Plan is shown in Table 14-1.

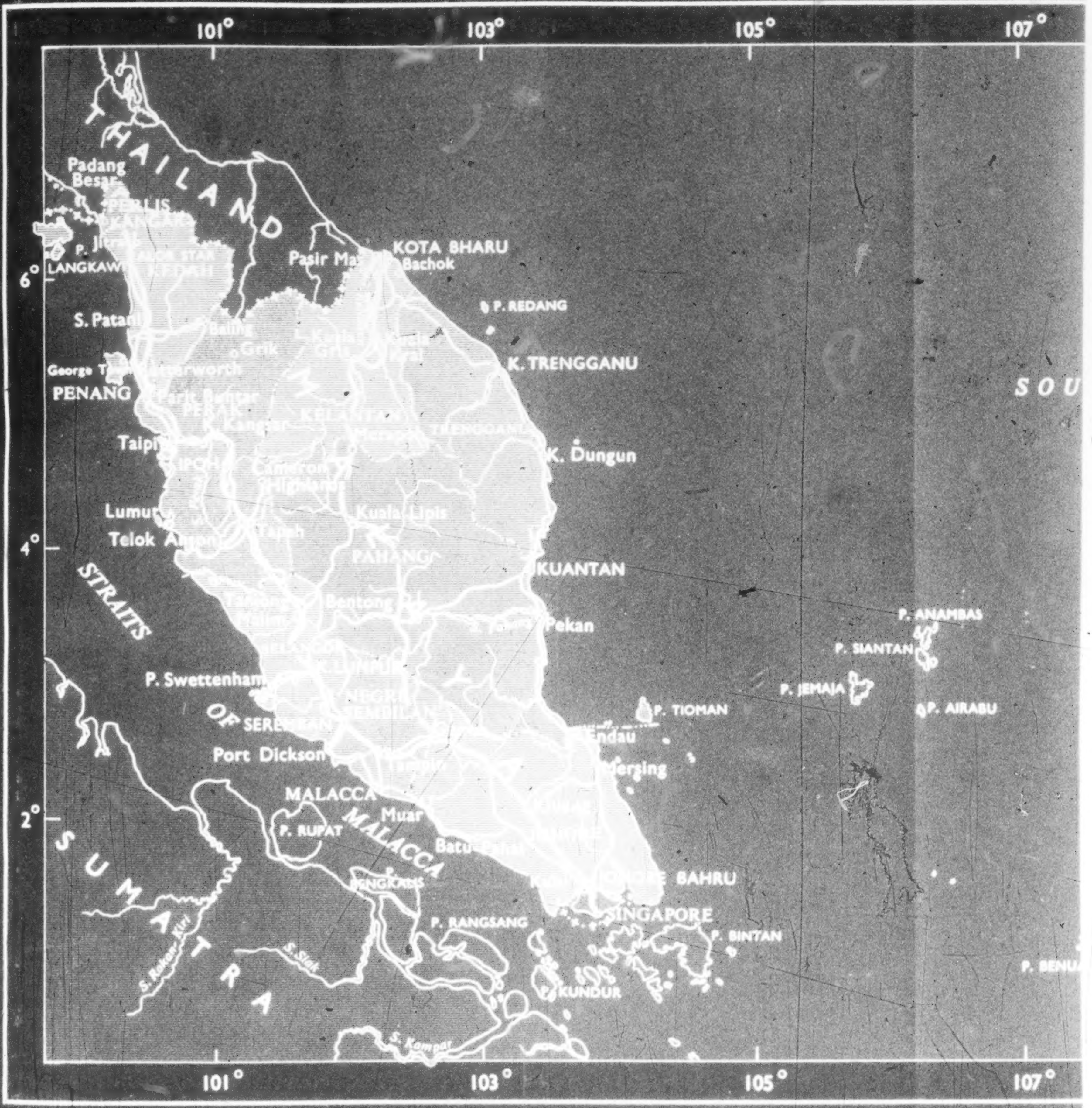
TABLE 14-1

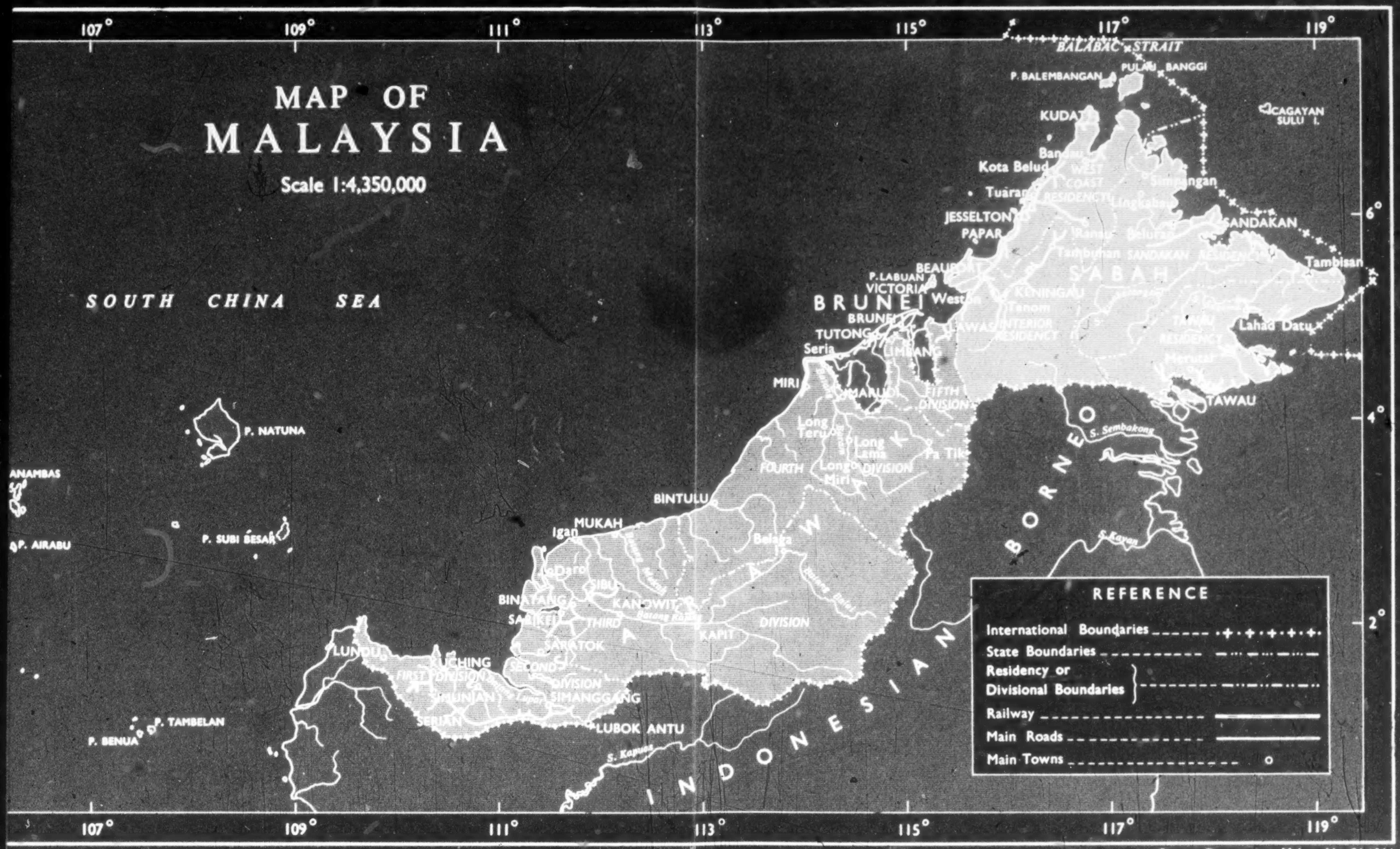
MALAYSIA: DEVELOPMENT EXPENDITURE FOR GENERAL ADMINISTRATION, 1966-70

($ millions)

	Malaya	*Sabah*	*Sarawak*	*Malaysia*
Government buildings	33.6	12.5	6.1	52.2
Judicial	4.4	1.3	—	5.7
Customs and Excise	5.2	—	—	5.2
Chemistry	0.7	—	—	0.7
Printing	1.2	—	0.4	1.6
Prisons	16.6	1.5	2.6	20.7
Ministry of External Affairs	12.5	—	—	12.5
Labour and Industrial Relations	0.4	—	—	0.4
Survey	2.4	7.6	2.5	12.5
Consultant services	—	4.0	—	4.0
Prime Minister's Department	2.0	—	—	2.0
Statistics	6.0	—	—	6.0
Game	0.9	—	—	0.9
Tourism	2.0	—	—	2.0
TOTAL ...	87.9	26.9	11.6	126.4

8148—10,000—2-12-65.

101°
103°
105°
107°
6°
4°
2°
THAILAND
Padang Besar
PERLIS
KANGAR
Jitra
P. LANGKAWI
ALOR STAR
KEDAH
Pasir Mas
KOTA BHARU
Bachok
P. REDANG
S. Patani
Baling
Grik
Kuala Krai
K. TRENGGANU
George Town
Butterworth
PENANG
Parit Buntar
PERAK
Kuala Kangsar
KELANTAN
TRENGGANU
Taiping
IPOH
Cameron Highlands
K. Dungun
Lumut
Telok Anson
Tapah
Kuala Lipis
PAHANG
KUANTAN
Tanjong Malim
Bentong
S. Pahang
Pekan
SELANGOR
KUALA LUMPUR
NEGRI SEMBILAN
P. Swettenham
STRAITS OF MALACCA
SEREMBAN
Port Dickson
P. TIOMAN
Endau
Mersing
MALACCA
Muar
P. RUPAT
Batu Pahat
BENGKALIS
JOHORE BAHRU
SINGAPORE
P. RANGSANG
P. BINTAN
P. KUNDUR
SUMATRA
S. Rokan Kiri
S. Siak
S. Kampar
SOU
P. ANAMBAS
P. SIANTAN
P. JEMAJA
P. AIRABU
P. BENUA



MAP OF MALAYSIA

Scale 1:4,350,000

107°
109°
111°
113°
115°
117°
119°
6°
4°
2°
SOUTH CHINA SEA
BALABAC STRAIT
P. BALEMBANGAN
PULAU BANGGI
CAGAYAN SULU I.
KUDAT
Bandau
Kota Belud
WEST COAST RESIDENCY
Simpangan
Tuaran
Lingkabau
JESSELTON
PAPAR
SANDAKAN
Ranau
Beluran
Tambunan
SANDAKAN RESIDENCY
Tambisan
BEAUFORT
SABAH
P. LABUAN
VICTORIA
BRUNEI
Weston
KENINGAU
Tenom
BRUNEI
LAWAS
INTERIOR RESIDENCY
TAWAU RESIDENCY
Lahad Datu
TUTONG
Seria
LIMBANG
MIRI
MARUDI
FIFTH DIVISION
TAWAU
Long Teru
Long Lama
Pa Tik
FOURTH DIVISION
Long Miri
S. Sembakong
BORNEO
BINTULU
SARAWAK
MUKAH
Igan
Belaga
Daro
SIBU
BINATANG
KANOWIT
SARIKEI
THIRD DIVISION
Batang Rajang
KAPIT
SARATOK
LUNDU
KUCHING
FIRST DIVISION
SECOND DIVISION
SIMUNJAN
SIMANGGANG
SERIAN
LUBOK ANTU
S. Kapuas
S. Kayan
INDONESIAN
P. NATUNA
ANAMBAS
P. AIRABU
P. SUBI BESAR
P. TAMBELAN
P. BENUA
REFERENCE
International Boundaries
State Boundaries
Residency or Divisional Boundaries
Railway
Main Roads
Main Towns

Survey Department Malaya No. 86-1964